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CONTENTS.

INDIAN JEWELLERY,

BY

COLONEL T. H. HENDLEY, C.I.E.

THE PANJAB; INCLUDING THE FRONTIER PROVINCE, KASHMIR, AFGHANISTAN, &c.

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In this exhaustive work an endeavour has been made to cover the whole known field of early carpet manufacture. The text (by Colonel T. H. Hendley, C.I.E.) is decorated in a style worthy of the charming designs illustrated; each page being surrounded with a beautiful 16th century Persian border in eight colours and gold. His Highness the Maharaja of Jaipur, with his well-known liberality, readily consented to allow his collection of old Persian and other carpets to be photographed specially for this work. From these carpets full-size patterns of the details, in colour of originals, have been prepared by Jaipur artists, also large "keys" showing the planning of the details in forming the schemes of design. In all cases the designs are on a large scale suitable for technical work. The best carpets and rugs now in the Indian and Persian Sections of the Victoria and Albert Museum have been photographed, including the beautiful Ardabil carpet* (see press notice).

* This carpet measures 34 feet by 17 feet 6 inches, and contains about 380 hand-tied knots to the square inch, which gives over 32,500,000 knots to the whole carpet. One-fourth of the carpet has been photographically reduced to half scale of original, and has been printed in the colours of the original to form 10 double plates (30 by 20 inches), and may also be obtained flat for mounting on linen, about 8 feet 6 inches by 4 feet 4½ inches, for Museums, Schools, and other educational or industrial purposes. The price of this part, or separate set of plates 101-125, for framing, is £3 net.

NOTE ON PERSIAN CARPETS. [*Daily Telegraph.*]

In the Indian section of the South Kensington Museum is now exhibited one of the most splendid examples of the product of the Persian loom that have ever been seen in Europe. This is the famous Ardabil or Ardebyl carpet, so-called from a Persian town in the province of Aderbaïdjan, which from time immemorial has been an emporium of merchandise, en route between Tiflis to Ispahan. Ardabil, which from the salubrity of its climate and the abundance of water which it enjoys has been called "the abode of felicity," is full of mosques and the tombs of exceptionally pious or otherwise renowned Mussalmans, and the famous carpet now on view is said to have been obtained from a mosque at Ardabil. It was not without difficulty that this wonderful piece of weaving was secured for South Kensington. The price demanded for it (£2,500)[1] exceeded that which the authorities of the Museum thought themselves justified to offer; but through the liberality of a number of gentlemen deeply interested in Oriental arts and crafts the sum which the Museum was prepared to give has been supplemented to an adequate amount. The carpet thus obtained for the nation measures 34 feet in length and 17 feet 6 inches in breadth, and an idea of the extreme fineness of its texture may be formed from the fact that it contains about 380 hand-tied knots to the square inch, which gives over 32,500,000 knots to the whole carpet. The main design comprises a large central medallion in pale yellow, surrounded by cartouches of various colours, disposed on a dark blue ground diapered with floral tracery. Each of the corners is filled with a section of a large medallion surrounded by cartouches. The border is composed of long and circular panels alternating with lobed outlines on a brown ground covered with floral embellishments, while at the summit of the carpet is a panel bearing a devout inscription tending to the inference that the carpet was originally used as a veil or curtain for a porch, and that it was the work of the slave "of the Holy Place, Maksoud, of Kashan, in the year of Hegira 946," corresponding with our A.D. 1540. Now, Kashan, on the high road between Teheran and Ispahan, was founded by Zobeide, the favourite wife of the Caliph Haroun-al-Raschid. It has been destroyed once or twice by earthquakes, but is at present a flourishing town adorned by a palace for the Shah, many large and beautiful mosques, and a number of caravanserais and public baths. At Kashan numerous manufactories of carpets, shawls, brocades, and silk fabrics are still carried on; but in 1540, when Maksoud, the slave of "the Holy Place," executed this marvellous work, admirable alike for its fineness of texture, its beauty of colour and symmetry of design, Kashan, with the rest of Persia, was under the sway of the Sophi dynasty, and the town is alleged to have contained no fewer than a hundred and fifty thousand inhabitants.

It is only within recent years that any very accurate knowledge of Oriental carpets has been disseminated in this country. The ordinary buyer knows three classes, and only three, which he roughly distinguishes as Turkey, Indian, and Persian carpets. The expert is, of course, a good deal more exact in his classification; but even his knowledge is as yet vague and confused. Carpets, either of cotton, silk, or wool, have during many centuries been used in the Orient, from the South of India to European Turkey, for domestic use, for the prostration of the praying Muslim, and for occasions of State. The carpets employed by the ancients are thought to have been of the nature of tapestry, and to have been chiefly used as loose coverings for couches rather than for floors. True carpets appear to have been early employed in Persia, and those called Turkish were no doubt originally of Persian manufacture, and were gradually exported and at length imitated in Turkey. Kernanshaw in Persia has still a carpet manufacture producing rich, soft, and beautiful goods, the sale of which adds considerably to the wealth of the province; while true Persian carpets are also made at Meshed in the Turkoman country and in Khorassan, and are justly renowned for the exquisite beauty of the patterns and the durability of the colours, which are purely vegetable dyes, comprising, among others, a green which is very difficult to make; it is conjectured to be a subtle combination of saffron and indigo. There is likewise a famous carpet manufacture carried on at Feraboun, near Teheran. The finest of all Persian carpets were formerly made at Herat, and one produced in the Chahal Minar at Ispahan largely exceeded in size the dimensions of the wonderful fabric at South Kensington, inasmuch as its length was a hundred and forty feet and its width seventy feet. The majority of these exceptionally vast and gorgeous products of the loom were destined either for the adornment of Royal palaces or the glorification of the holy Kaaba, or some scarcely less venerated shrine. Sometimes the entire interior of a mosque, such as that at Meshed Ali, was hung with superb carpets; and the Mihrab or niche towards Mecca was always a favourite object for such ornamentation. Mats or rugs of a much less costly nature were spread on the floors. With respect to the ordinary Oriental carpets, they may be roughly divided into two classes, the floral and the geometrical; and the former is the design affected by the higher and Aryan races, the last being preferred by the lower and Turanian races.

The beautiful Persian carpet at South Kensington may, it is to be hoped, become a most valuable factor in technical art education in this country. Some humourist once said of a Turkish carpet that its pattern resembled nothing visible in the heavens above or in the earth beneath, or in the waters under the earth; and, to a slight extent, this hyperbolical disparagement is justifiable in the case of the Turkoman carpets for which Vambery saw the old woman tracing the pattern in sand. The girls employed in carpet-weaving would obviously prick or chalk down on the particular piece of textile fabric assigned to them so much of the pattern as they were expected to weave, and these hasty sketches might in many cases deviate from the original model. Scores of workers were often employed in as many cottages in making these detached portions, which, when sewn together, may have presented a slightly mixed appearance, the incongruity of which was at the same time happily modified by the predominant traditions of design and colour which had come down to the people from remote ages. The pattern of the Ardabil carpet seems to be one perfectly distinct and regular, and, even did it present some slight obscurities, the puzzle could be easily cleared up by a careful and minute analysis and dissection of the whole work by the aid of practical geometry and conventional botany. It is curious to learn that, at the very period when Maksoud of Kashan, the slave of the "Holy Place," was completing the Ardabil carpet the manufacture of these commodities was first introduced into England by one William Sheldon, under the direct patronage of Henry VIII. The manufacture, nevertheless, was for many years exclusively confined to its use as tapestry or arras for the decoration of walls. The apartments of the palaces of Queen Elizabeth were hung with the costliest products of the Flemish looms, but her Majesty had certainly no carpets on the floors of her presence chambers or her banqueting halls. The floors were simply laid with rushes. The Oriental custom has always been and still is to employ carpets as hangings for shrines and porches, as coverlets for couches, and as rugs lying loose on the floor; and this sensible system, which has been largely adopted among us since the extension of the trade in Oriental rugs, will, in all probability, be still further developed by the technical as well as by the æsthetic teaching of the splendid carpet at South Kensington.

[1] Bought for £2500, of which £750 was contributed by A. W. Franks, Esq., C.B., E. Steinkoppf, Esq., William Morris, Esq., and J. E. Taylor, Esq.

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36.—Oil Painting. Portrait of a Hindu lady, shewing the mode of wearing jewellery. Painted by a native artist for the Municipality of Amritsar. From the original in the Indian Museum.

37.—251. Cross: gold filigree and carbuncles. Delhi. 252. Cross; steel inlaid with gold wire. Kuft work from Sialkot. 253. Necklace of cut garnets strung on thread. Jaipur. 254. Necklace of green beads (Plasma) strung on thread. Bhera, Shahpur District, Panjab. 255. Brooch; gold and carbuncles. Roman; from the British Museum; 1st to 5th century A.D. 256. Charm; lapis lazuli set with gems. Delhi. 257. Flat bead; jasper. Found at Nagar, Jaipur State; probably Buddhist.

The Journal of Indian Art and Industry.

INDIAN JEWELLERY.

By COLONEL T. H. HENDLEY, C.I.E.

PART IV.

THE PANJAB; INCLUDING THE FRONTIER PROVINCE, KASHMIR, AFGHANISTAN, AND THE NORTHERN HIMALAYAS.

In considering the Jewellery of the Panjab, the history and geographical position of the Province are of unusual importance. It is at the north-west gate of India, through which, in the past, many conquering hordes have come into the Peninsula, some merely to raid and return, laden too often with spoil, to Central Asia, whence they came; and others to remain and to be absorbed into the ranks of those who were already in the land. So intimate has the connection been with the countries to the north that for a time, almost within our own days, the Trans-Indus Districts of the Panjab formed part of the dominions of the ruler of Kabul, a country beyond the great outer passes of the Himalayas.

So many invasions of races, differing in origin and character, must have left an influence, more or less powerful, according to their extent, to their duration, and, in the present case, to the artistic ability and force of character of the different people who were involved. It is proposed to consider the effect of those civilisations, which were older than Alexander the Great, in a later article; but even from him and his descent into the Panjab, we must pass to his immediate successors in Bactria, or Balkh, and to the Indo-Scythic kingdom, going on afterwards to the different Mohamedan raids, some of which ended in settlement in the country, down to the time of Ahmed Shah Durani, and the modern connection with the Kabul valley. We shall also have to consider the trade interchange between the Panjab and Central Asia and Kabul through the Kaibar Pass, and with Persia through the Bolan Pass, and along the coast. We must also include in our survey Kashmir and the Hill States, which have always been intimately connected with the Panjab. The differences of religion and race, moreover, have not been without effect. Buddhism and the cult of the Sikhs, have left special marks on the Hinduism and Mohamedanism of the Panjabis. The rude and uncultivated character of the Jhats, and the artistic skill and mechanical dexterity of the Kashmiris and the peculiarities of other Hill Tribes have had some influence on the industrial arts, as well as on the customs and costume of the people all over the Province. A few remarks on the materials available in the Panjab for personal ornament are also desirable.

The changes set on foot by Alexander himself were probably very small; but the Bactrian coins, some of which are still recognized as amongst the most beautiful in the world, show that a very high artistic influence soon made itself felt in or near the Panjab. As regards their connection with jewellery, the following may be noted. Many coins of the Greek kings, who ruled in Bactria or Balkh, the Bokhara of our time, or in Kabul (some of which, especially of the later rulers, are found in the Panjab), perhaps had some influence in North India. The chief ornament of the beautiful heads on the obverses of the coins is a diadem, the invariable sign, according to Mr. Gardiner, of the Greek caste of royalty. Mr. Gardiner observes that "The earliest of the clearly Indian types of the coins of the Greek kings to make its appearance is a dancing girl wearing long hanging earrings." It is curious that this feature prevails so markedly in the Himalayas, and also in Central Asia, to this day. We shall remark it particularly in writing of Tibet. Mons. Ch. E. de Ujfalvy in the Atlas des Etoffes, bijoux, etc., de l'Asie Centrale of his work on the Expédition Scientifique Française en Russie, en Siberie et dans le Turkestan, has numerous illustrations of such earrings, some of which are so weighty that they have to be supported, at least in part, by hooks attached to the turban. These coins shew what a high state of culture existed before our era. The fine statues of a later period, including those of the Indo-Scythic dynasty of kings which began with Kadphises I., who invaded Kabul, and his successor—Kadaphes, who conquered North India about the middle of the first century after Christ, are further proofs of this influence; and the effigies of some of the kings of the period, as for example Azes, who probably ruled in the Panjab about 30 B.C., reveal to us the actual forms of ornaments that were worn there in remote ages. It is conjectured that Greek, Barbaric, and even Parthian chiefs were ruling portions of North India about the same time, so that in those early days the culture of many diverse races prevailed. The dark ages, however, soon began, and the decadence is especially marked upon the

coins, which degenerated more and more until the Mohamedans appeared. Their currency, owing to the rooted objection to representing the human form, serves no purpose in our enquiry, but some of the invaders who professed this faith had a general effect in introducing the arts and customs of far distant lands into the countries they raided. Even in the early days of their sway, the Mohamedans soon fell a prey to much of the luxury and civilizations of the ancient races over whom they were victorious, as the following paragraphs clearly shew :—

Mons. Gayer, in his "L'Art Arabe," gives an abridged list of some of the treasures of the Fatimite Caliph Mostauser-b-illah about A.D. 1047. There were many precious stones, such as—A casket filled with seven measures of emeralds, worth 10½ million francs, £420,000; a collar of stones valued at £48,000; seven ornaments of magnificent pearls; 1200 rings of gems set in gold, which had cost £36,000; enamelled plaques of gold; a seal of yellow amber, the work of Fakr-ed-Daulah, upon which were engraved Arab verses; 28 plates of enamelled gold, which the Greek emperor had presented to the Caliph Aziz-b-illah, each of which was worth £1800; caskets containing steel and glass mirrors, which were enriched with gold and filigree and precious stones, and had emerald or carnelian handles and borders of pearls; a turban decorated with gems, which was worth £78,500; a golden peacock set with gems, with eyes of rubies and patterns of gilt enamel; a cock with a comb of rubies, covered with pearls and gems.

After a long account of other treasures, which prove to us that the Mohamedan empire, not long after the first invasion of India, had not only gigantic resources but craftsmen capable of executing the most beautiful and artistic work, whose influence must have been widely felt amongst all the nations with which conquerors or invaders invaders came in contact, he goes on to add :—"The fragment which I have translated shews how glorious was the setting of gold in which the artist of that time loved to embellish his work. It was an enchantment of which the perfection of the workmanship disputed the brilliance of the metal, and the glitter of the colours lent an enchantment which vanished, and left behind it only naked walls and empty frames, which we can only evoke by an effort of the imagination."

In his "L'Art Persan" the same author refers to the great skill of the Persian seal engravers, derived, he thinks, from the Chinese, but which was transmitted from them, perhaps with greater probability, to the Delhi artists. He also writes of damascening as having originated in Damascus, though we know that it was practised from remote times in Egypt, where amongst the Arabs we also find it was a favourite art derived, according to the conjectures of Gayer, from Damascus, though it seems more natural to conclude that from remote ages it was one of the arts of the Delta. Timur, or Tamerlane, for example, carried away artificers from Damascus to his own capital, where, therefore, the arts of the Byzantine empire and of the Caliphs (who, as we have just shewn, were not far behind the Greeks in culture) were soon practised.

It is impossible to say whether it was through him or not, that we can explain the prevalence at this time of some forms of ornament in India which also occur in Central Asia. Many of these are illustrated in Mons. de Ujfalvy's atlas, to which reference has already been made. Thus in his sixth plate we have the head-dress of a Samarkand woman ornamented with silver jewels, and a man's turban with a silver-gilt aigrette, such as the Moghul emperors wore and Indian nobles still wear. The latter, of course, may have become popular under the Delhi emperors, but was no doubt in earlier use. The box-like oblong pendants and flat triangular leaflets suspended from chains, which hang from the Central Asian woman's turban, are fastened in India to necklaces. Certain cylindrical head ornaments, too, are more frequently used in India as amulet cases, but the forms and decorations are very similar. In Plate VII. we have buttons with inscriptions in Persian characters, which, as before suggested, might be imitated in Indian enamels. In Plate VIII. there are Kirghese head ornaments cut in copper, which are composed of spherical or oval button-like plaques, with drops suspended by chains from them and from the head-dress over the ears. The cold of winter in Turkestan and in the Himalayas does not admit of much exposure of the body, hence more ornaments are heaped on such parts as the head than we find is customary in warmer regions. In Plate IX. there are silver enamelled ornaments of the Central Asian forms which were illustrated when we were dealing with Jaipur enamel, and many of the Central Asian ornaments, which are usually made of silver, are enriched with turquoises and coral, the prevailing fashion all along the Himalayas, especially towards the East.

Ujfalvy gives us, in another atlas, numerous anthropological portraits, amongst which may be remarked one of a Kiptchak woman who wears large earrings of the bell type, that are very like the phul jhumka of India; another of a young Sarte girl (the Sartes are all the sedentary and town-dwelling people, except the Tadjiks, who live in Turkestan), who wears long earrings with chain pendants, such as we find in Kulu and in the Panjab Hills. In nearly all cases, when in full dress, the women wear long earrings, whether they be Sartes, Tadjiks (of Persian or semi-Persian origin), or nomads. All this points, I think, to free communication between Turkestan and North India for many centuries. I quote some remarks on the uniformity of the styles and the decadence of

work in Central Asia, not only because they shew that it is not merely local products that come into the Panjab, but as they are so apposite in regard to decay of the arts in India.

"Les bijoux de cette contrée, presque toujours en argent (sans alliage) sont ou modernes ou anciens. Les anciens, généralement d'un travail fut remarquable, sont ornés de pierres precieuses (turquoises, rubis, saphirs, lapis-lazuli, cornoline, etc.); les modernes qui ne manquent ni de finesse, ni ce gout sont décorés de pierres fausses. Le bijoux connue d'ailleurs tous les produits de l'industrie de l'Asie Centrale, portent la marque de la décadence générale, chaque fois qu'ils sont de fabrication recente. Nous avons fait reproduire des bijoux sartes, kirghises et même bachkirs; ces derniers affectent absolument les mêmes formes et les mêmes ornamentations; ils sont evidemment d'une provenance semblable." "The jewels of this country, which are nearly always of silver without alloy, are either modern or antique. The antique examples, as a rule of very remarkable workmanship, are usually ornamented with precious stones (turquoises, rubies, sapphires, lapis-lazuli, carnelians, etc.); the modern, which are wanting neither in fineness nor taste, are adorned with false stones. Jewellery, as well as other industrial products of Central Asia, bears the marks of general decadence, wherever of recent fabrication. We have illustrated Sarte, Kirghese, and even Bashkir jewellery, for as the latter follow absolutely the same forms and ornamentation, they are clearly of similar production."

As regards heavy head and turban ornaments and long earrings or drops over the ears, some of the illustrations, such as the turbans of Uhch girls in Lahore, and the Kangra silver work are cases in point.

Peshawar, in all probability, for a very long period, as it is now, was a mart from which Central Asian ideas penetrated into India. This is the place at which the traders, who come in caravans from beyond the hills, first halt after they emerge from the Kaibar Pass. In these days, if one goes, as I did, as far as Ali Masjid or Jamrud, on the days when the pass is open, one may see long caravans of merchants on their way to India. It was from such merchants that the famous Oxus Treasure, which will be referred to in a later number, was obtained. It was in Peshawar that some of the articles they brought were sold. It is in Peshawar that one can buy Pehlevi gems, some of which have, however, I believe, been found in the Panjab itself, and in the bazárs of the town the traveller can purchase many examples of jewellery and other industrial art objects.

The mention of Pehlevi seals brings us to a subject of importance in India, as it has been all over the East. The seal, as I have noted in previous papers, is in universal use amongst Mohamedan men, as it is with the males of any position of all sects and religions in India. Mr. Ed. Thomas, I.C.S., in his work on "Early Sassanian Inscriptions, Seals and Coins" (1868), observes that "In Egypt and to the westward men's signets were set in the form of finger rings; but in the east, among the lightly-clad multitudes, they were simply suspended round the neck, while the better classes seem to have worn them either on the wrist or as an armlet." He supports this statement by quotations from the Shah Námah, as when the dying Sohráb reveals himself to Rustam with the expression "Thy seal upon my arm behold." Mr. Thomas also describes a carnelian seal in the British Museum, which serves the purpose of this article, inasmuch as it shews the antiquity of the Indian custom of using seals, as well as of some of the ornaments worn by kings in ancient times. Of the latter, the crown, the diadem, the earrings (seemingly pearls), a collar (probably of gold, with a large bead in the centre), and a necklace of large beads or pearls are conspicuous. The legend upon the stone, in Pehlevi characters, is as follows: "Attestation of Shahpur, Fire Priest of the Iranians."

The word "attestation" describes the use to which the seal is put to this day, in India as elsewhere, as some of our illustrations shew. The sawar or the cavalry, and the sipahi or the infantry, soldier, if they cannot write, especially if they are Musalmans, affix signets to the pay-roll when they draw their salaries. Their seals are perhaps their only ornaments. The Moghul kings had magnificent seals, on which were inscribed, not only their own titles, but those of their ancestors, in accordance with the customs of the Central Asian chiefs from whom they sprang. The Moghuls also impressed the "panja," or mark of the Imperial hand, at the top of important documents for the same purpose, and Hindu chiefs adopted the seal.

The seal engravers of Delhi are, perhaps, the most famous in India, and some of their workmanship is of much beauty, a fact which is due to the great capabilities, from this point of view, of the Persian characters. Some illustrations of ancient Egyptian, Sassanian and other seals will be given, for comparative purposes, in the next part of the Journal.

In studying our subject in the Panjab it is, perhaps, as convenient as in any part of the present work, to consider the question of the trade in jewellery in India, and the extent to which the people are employed in manufacturing or distributing it. It is impossible, however, to separate the industries which depend upon the supply of personal ornaments, so that many of the figures must include allied occupations and manufactures.

The Report of the Indian Census for 1901 shews the great importance attached to the use of ornaments by the people. It is difficult to estimate the number of actual workers or the special kind of work which they do;

but we find that more than half a million persons live by the making of bangles, necklaces, beads, and sacred threads alone, of whom 188,000 and 152,000, respectively are supported by the making and selling of (*a*) glass and (*b*) of other kinds of bangles. The workers and dealers in metals and precious stones, and their dependents, number nearly 3¾ millions, of whom 1¾ millions are connected with gold, silver, and precious stones. This is believed to be a real increase on the figures of 1891, shewing, amongst other things, the will and power of the people to augment their stock of ornaments and jewellery. The Sonár, Súnar or goldsmith caste ranks fairly high amongst Hindus; as, for example, in Rajputana and the Panjab it is one of the castes from which members of the higher, the twice-born, or more exclusive castes can take *pakki* (certain sweetmeats), food and water without defilement. The caste of Sonár (Soni, Sunar, Sarnahar) goldsmiths, bankers, etc., proper is found all over India, and at the Census numbered 1,253,070, of whom 642,968 were males and 610,102 females. In Bengal there were of this caste 245,681 persons, in Bombay 197,425, in the Panjab 188,762, in the United Provinces 291,756, in the Central Provinces 97,514, in Central India 75,620, and in Rajputana (including Ajmere) 72,955. Table XV. of the "Occupation or Means of Livelihood" gives many side-lights on the subdivisions of those who live by the professions we are considering. The following table, which shews the occupation and other particulars of all those who are more directly concerned in the work may therefore be interesting :—

Occupations.	Total supported.	Actual Workers. Total. Males.	Actual Workers. Total. Females.	Actual Workers. Partially Agricultural. Males.	Actual Workers. Partially Agricultural. Females.	Dependents. Both Sexes.
33. *Bangles, necklaces, beads, sacred threads, etc.*	548,829	173,421	100,661	13,138	3,275	274,747
208. Makers of bangles other than glass.	83,489					
209. Sellers of bangles other than glass ...	68,840					
210. Makers of glass bangles	75,443					
211. Sellers of glass bangles	112,821					
212. Imitation and pewter jewellery makers	11,002					
213. Sellers do. do. ...	9,674					
214. Rosary, bead, and necklace makers...	46,884					
215. Sellers do. do. ...	30,089					
216. Flower garland makers and sellers...	87,050					
217. Makers and sellers of spangles, lingams, and sacred threads ...	23,537					
43. *Gold, silver and precious stones.*	1,768,597	600,931	33,671	50,753	1,706	1,133,995
307. Mints : managers and superior staffs.	213					
308. Mints : operatives and other subordinates	1736					
309. Gold mines : owners, managers and superior staff	220					
310. Gold mines : operatives and other subordinates	12,526					
310 (*a*) Gold washers	618					
311. Jade miners	702					
311 (*a*) Diamond miners	569					
312. Goldsmiths' dust washers	47,156					
312 (*a*) Washing river sand for gold ...	683					
313. Enamellers	3,121					
314. Electro-platers and gilders	5,898					
315. Dealers in plate and plate ware ...	3,275					
316. Gold and silver wire-drawers and braid makers	66,090					
317. Workers in gold, silver and precious stones	1,512,249					
318. Dealers in do.	111,213					
319. Pearl divers	2,328					

Many others, whose separate occupations cannot be traced in the tables, are engaged in subsidiary work of this kind; as, for example, in embroidering clothes in gold, and so on. Some idea of the actual occupations of

the people in connection with certain selected castes, is also given in Table XVI. of the Census, but special reference to many of the subsidiary occupations will be deferred to more suitable places in subsequent papers. Thus, for example, under the head "Metals and Precious Stones," in the different Provinces actual workers in the castes named are engaged in that occupation, although it is not ordinarily that to which their designations seem to apply.

Tribe, Caste or Race.	Traditional Occuptn.	Province.				
		Bengal.	Bombay.	Central Provinces.	Madras.	Central India.
Brahman	Priests ...	805	250			
Kamar and Lodi Rajput	Blacksmiths..	66,500				
Ghasia	Grass Cutters			1054		
Kummala	Artizans ..				26,683	

The following statistics are also of interest, as shewing the number of workers in some large cities :—

	Calcutta	Bombay	Madras	Rangoon	Delhi	Lahore	Cawnpore	Agra	Ahmedabad	Allahabad	Amritsar	Howrah	Lucknow	Karachi
Enamellers	74				271	21		43	1		75			
Gold & silver wiredrawers & braid makers	60	72	11		843	123	19	646	77		1719		967	341
Workers in gold, silver & precious stones	4629	3226	3217	1352	1123	706	710	661	1219	445	63	304	1288	39

To sum up, the Indian Census figures shew that in every 10,000 of population there were 12 makers and sellers of bangles, and 97 goldsmiths and blacksmiths. The workers and dealers in metals and precious stones and their dependents number nearly 3¾ millions. There are four sub-orders, viz.: 43. Gold, silver and precious stones. with 1¾ million persons; 44. Brass, copper and bell metal, with nearly two-fifths of a million; 45. Tin, zinc, etc., with 76,000; and 46. Iron and steel, with 1½ million; half a million depended on the supply of bangles, necklaces, beads and sacred threads.

An official monograph on "Gold and Silver Ware," which was written by Mr. A. P. Charles, I.C.S., was published in 1905. It relates chiefly to the United Provinces, but the remarks are equally applicable to the Panjab, and are included here because Mr. Charles refers to the importance of Delhi, now a Panjab city, in the distribution of ornaments in the United Provinces, of which it was the capital in Moghul times. It contains, besides the Introduction, sections on the Raw Metals; Imports and Exports; the Sunar's (goldsmith's) Tools; His Weights; the Methods of Assaying Alloys; the Refiner and his work; Ornament making; Gold and Silver Wire; Miscellaneous Gold and Silver Work: a List of Ornaments; Gold and Silver Ware in the Hills; the Sunárs as a Caste; Wages and Profit; Financial Position and General Reputation; Superstitions and Observances with regard to Ornaments; and a concluding article. There are some excellent illustrations. The scope of the Monograph is a wide one, but personal ornaments are the principal subject of discussion. Mr. Charles refers to the antiquity of the goldsmith's art, to the persistence of form and the religious character of many ornaments, to the necessity of their use as a mark of respectability even amongst the poorest classes, and to the large "amount of unproductive capital locked up in this way." He notes that Delhi is a centre from which many towns and villages in the United Provinces obtain their supply of the precious metals, a proof of the desirability of including in this paper the old Moghul capital in that province. He refers to the use of the purest gold (Kundan) for setting stones in jewellery. This word has given its name to a special kind of work. Old ornaments and coins, especially in times of scarcity, are broken down, and of course the silver in them is often much alloyed. He thinks buried treasure in Native States is one source of this supply. The article on the Sunár's tools is interesting. No machinery is used. I have described most of these in my own Monographs on Enamelling and Damascening in metal. The furnaces, crucibles, blow-pipes, moulds, anvils, hammers, tongs and pincers, files, chisels, etc., are of simple, rather rough, but ancient form. The plate for drawing wire dies and moulds seem, like the other implements, almost universal. The brass or bell-metal square cube, in which there are different sized hollows for forming round patterns, and the plate with different patterns for making chain designs, etc., are also used in Rajputana and probably throughout India, as are doubtless most of the tools. The article on ornament making is of most value in the present enquiry. As I have shewn elsewhere, the village goldsmith carries out the whole of the operations required in making an ornament himself, while in the large towns different portions of it are the work of special men.

The following extracts and condensed notes represent the views of well-known official writers upon the gold and silver work of the Panjab :—

Handbook of the Manufactures of the Panjab, Vol. II. (B. W. B. Powell, I.C.S.; Lahore, 1872).—Class VII. (Introduction) contains the samples of native jewellery and enamelling. "The jewellery, properly so called, consists of gems cut and set in gold for rings, necklaces, armlets, &c. The native names and varieties of jewels are perfectly endless, and vary in different districts. . . . Almost the only gems esteemed by natives for their finest ornaments are rubies, emeralds, diamonds and pearls; all the others are despised, and sapphires are quite uncommon, and only worn in the 'nau ratn,' or armlet with nine gems. . . . The gems are all imported, rubies from Ceylon and Burmah, diamonds from Central India, but many from Calcutta, from Brazil, &c.; emeralds are not found anywhere in India, but stones of immense size are to be met with, filled however with flaws—they are all imported. . . . There is another class of jewellery which deserves notice, viz., that of Delhi made in European fashion, with stones cut as in Europe, which latter are chiefly brought from Calcutta. Very good native work in imitation of European is also done in Kangra, but principally in gold and enamel set with stones." The author, in his full account in the body of the work (pp. 175 to 201), gives long lists of the jewellery of both men and women. He refers to the immense number of names for the different ornaments for the sexes, which are distinct in form as well as in name. The poor and the country people wear mostly silver ornaments, those better off the same in gold, and only the wealthy possess those which are richly jewelled. Silver ornaments are almost the sole form of wealth among the villagers. In the hills the number of such ornaments decreases, and less jewellery is worn by the men; while the women have large necklaces of beads of rough bits of amber, red coral, and turquoise pebbles, or imported glass beads, or beads cut out of the conch shell which comes from Yarkand and Kashmir. Charms and amulets are worn there also, or copper boxes for them, which are ornamented with brass and turquoises. The women in the Simla States wear immense "paizebs" or anklets of zinc, or thick zinc wrist bracelets. He refers to the Kulu custom of wearing earrings resembling bunches of flowers and to the unusually large number of silver ornaments the people use. The Kulu silver head-gear is particularly graceful. The bazár at Sultanpur, the modern capital, when I visited it in 1876, had some clever jewellers in it.

He divides the subject into three main classes, viz.:—1. Hill ornaments; 2. Those used in the plains generally; 3. Imitation of European jewellery and Delhi work. Class 3 is referred to in the first part of this series of papers. For local names and descriptions reference should be made to Mr. Baden Powell's work. The illustrations should also be examined as guides to form. As the work, though official, is now scarce, the general list which is given of all the jewellery worn in the Panjab is reprinted here (pp. 181 to 184 of the Handbook, Nos. 1 to 99). It is added that very fine jewellery is but little made in the Panjab. "Most of the necklaces and turban ornaments made for the nobility are got at Jaipur, &c., and the fine enamelling is done at Jaipur and Benares." The reader is therefore referred for full descriptions of the finest work to the articles on Rajputana and Malwa. The general account of the manufacture of a valuable ornament is applicable, with some exceptions, to most provinces. The design is drawn out by the head jeweller and he gives the drawing to the workmen. Unless the stones are clear set, all the finer specimens are beautifully enamelled on the back. The plain form of the article, whether made in gold or silver, or by the use of the die or mould, is done by the *sunár* or goldsmith (also known as the *zargár* or *sunyár*). If it is to be embossed or chased the *chatera* is called in. The enamelling is done by the *mínakár*, the stones are set by the *murassiakár* or *kundansáz*, using lac and tinsel, or foil prepared by the *bindligar*. The head jeweller is however not always, in fact (in my experience rarely) the designer, who is usually an artist in his employ. He may possess, however, a large pattern book made up at odd times by himself or obtained by inheritance, from which he or his patrons make selections, or his artists obtain ideas for new examples.

Leaving out Delhi, the jury at the Panjab Exhibition of 1864 had very little to report upon. Karnál, Rohtak, and Amballa sent a few gold and silver ornaments, also Ludianah and Simla; Kangra some enamel; Amritsar various ornaments; and Lahore more sumptuous work, I imagine rather as a distributing centre than a manufacturing one. Multan produced some enamel; Montgomery many silver ornaments; and Dera Ghazi Khan, Banú, Peshawar, Kapurthala, and Chamba a few ornaments in gold as well as in silver; Kashmir was well represented. Reference is made to Kuftgari work from various places, but it was not much employed for personal ornament, though at one time crosses, plaques for belts, and such like pieces were made for Europeans at Sialkot and elsewhere. Mr. Powell also has notes on enamelling, pearl boring, ring setting, seal engraving, and tinsel ornaments, which will be described later on. He has also a long history of the Kohinur diamond. He observes that the most original work of Delhi jewellery is that known by Europeans as bábul work. The native workmen call it "Khárdár," literally "work of thorns" (khár) or points. The ornaments of gold must be spherical or made up of circular convex pieces, which are covered all over with a number of minute golden points,

and then this surface, like a tiny hedgehog's back in gold, is frosted, so as to resemble to the Indian reader the flower of the *Acacia arabica* or bábul; but for the sake of others he describes it as a little ball of yellow filaments. A coarse work of the kind is termed "gokru," from the seed-vessel of the burr (spear thistle). The bosses are hollow and are sometimes filled with lac. Each point is separately made and fixed on the surface.

Mr. Baden Powell's account is followed by an extract from the Report of the Jury of the Panjab Exhibition of 1864. Therein the jurors observe that Delhi was, and perhaps is still, the principal place in India for the manufacture of all kinds of jewellery, though since the extinction of the King and Court after the Mutiny the trade is not what it was, and the best artizans are emigrating to the Native States.

The Panjab Exhibition Report, 1881-2, continues the history, as the following notes shew:—Karnal: Characteristic hollow silver beads have been a speciality of Pánipat for many generations. Rohtak: Remarkably good examples of peasant jewellery, which came from Rohtak, were purchased for the West End of London. To many eyes, some of these might appear barbaric, but they possessed a character and quality of design grievously wanting in more pretentious work. Amballa sent bracelets in open-work of chiselled silver which were particularly good; and a fine gold nose-ring (nath) from Hoshiarpur was a remarkably well-finished piece of work, each of the many minute flowers and rosettes being perfectly made out. Kangra sent some characteristic silver and enamelled silver ornaments. Amritsar sent a good collection, but most of the articles were imported. In the Multan enamel the jurors regretted the absence of variety or originality, which in great part was due to the method of work. "Engraven dies, into which the silver is beaten, are used," and indeed it is only by this labour-saving plan that the articles could be produced at the price, The Jhang District also sent some enamelled silver similar to that of Multan. Rough work was sent from Muzaffargarh and Peshawar. In the latter the work was large in pattern and coarse in workmanship, but interesting in character. Better work came from Abbottabad, the capital of the Hazara District, as far as boldness and goodness of design went, though not of finer workmanship.

List of Panjab Ornaments, from Mr. Baden Powell's Work.

I. Head Ornaments.—Men's: 1. Sarpesh, Jighán, the jewelled aigrette worn in front of the turban. 2. Kútbiladár, an oval pendant worn over the forehead. 3. Kalgi, plume in jewelled setting. 4. Turah-i-marwaríd, tassel of pearls worn on the turban. 5. Múkat or Umlakh, a head-dress worn by Hindus at weddings, etc. Women's: 7. Sisphúl, Chanuk, or Chotiphúl, a round boss worn on the hair over the forehead; cut or indented so as to resemble a chrysanthemum. 8. Phúl, a boss like No. 7, only smooth, hemispherical and set with jewels; it is worn on the top of the head; one or two are worn at pleasure. 9. Mauli, a long chain made of rows of pearls separated by jewelled studs, about 8 inches long, hanging from the head on one side. 10. Sirtháng, a chain and pendant worn on the head by Hindus. 12. Bodá, an ornament of silk and silver plaited into the hair of children.

II. Ornaments worn on the forehead (by women only).—13. Dámni or Dáúni, a fringe worn over the forehead on either side of the face; some of these are richly jewelled. 14. Kutbi. 15. Sosain; both are varieties of No. 13. 16. Tika or Kashka, small ornament on the forehead (pendant). 17. Chánd bíná, a moon-shaped pendant. 18. Táwit, small amulets worn on the head. 19. Jhúmar, a tassel-shaped ornament or pendant, mostly worn towards Delhi, and not in the Panjab. 20. Guchhi marwarid, a cluster of pearls. 21. Bindlí, a small tinsel forehead ornament. 22. Barwálí, tinsel stars worn over the eyebrows.

III. Ear Ornaments.—Men's: 23. Bálá, very large thin rings worn by Khatris, Sikhs and Dogras; they have a pearl or so strung on the gold wire of which they are made. 24. Murkí, smaller earrings of the same shape. 26. Zangiri, a chain worn with the Bálá to keep it up. 27. Dúr (gold), a small earring with three gold studs on one side. 28. Birbali, a broad earring with three studs. 29. Durichal, an earring with pendent tassel. Women's: 30. Báli or Goshwara, a set of rings worn round the edge of the ear. Báli Bahaduri, it has a large pointed stud in the centre. 31. Karnphúl Dhedu and Jhúmka, all forms of tassel-like ornaments, made with silver chains and little balls, fringe of silver chain work, etc. 32. Pipal wáttá or pipal pata, like a murki, but has a drop or pendant ending in a fringe of little gold pipal leaves. 33. Kantála, a similar ornament, having a stud besides the pendant. 34. Báli-Khungri-dar, a heavy fringed earring. Bálá-Katori-walla-Sáda, an earring with a central boss-like ornament. 35. Khalíl, a small earring. 36. Jalíl, just the same, only that the central stud is jewelled. 37. Phumni, silk and tinsel tassels. 38. Machh-Machlián, a small gold figure of a fish worn as an earring. 39. Tid-patang, a locust-shaped jewelled pendant; along the lower edge of the crescent hangs a row of gold pipal leaves. 40. Taudaura dedi, a huge star-shaped jewelled stud. 41. Mor phunwár, a pendant of jewels, being a rude imitation of a peacock.

IV. Nose Ornaments.—Women's: 42. Nath, a large nose ring, one side of the ring being ornamented with a belt of jewels or a few pearls, and gold spangle ornaments, etc., hung on to it. 43. Bulák, a small pendant, either worn hung to the cartilage of the nose or else strung on a "nath." 44. Latkan, a sort of ornament of

pendants put on to the thin gold ring called a nath, and hanging from it. 45. Morni, a small pendant for the above, shaped like the spread-out tail of a peacock. 46. Laung, a small stud let into the flesh of the nostrils on one side; generally of gold, with a pearl or turquoise in it. 47. Phúlí, a small ring with a single emerald or other stone of an oval shape as a pendant. 48. Bohr, a jingling pendant of gold pipal leaves. 49. Machhlian-be-sir, headless fishes. Teeth Ornament.—50. Rekhán, a stud of gold or silver fixed into the front teeth. Hindus, especially Brahman and Baneah women, frequently wear these gold leaves or plates over several of the teeth. It is a general idea that some precious and sacred object, such as gold, should be always present on the body for good fortune, or as many believe, to pay the Hindu Charon or ferryman for his services at Vaitarani, the River of Death.

V. Necklaces and Neck Ornaments.—Men's: 51. Málá, necklace of large beads hanging down long and loose. 52. Kanth-kanthi (worn by women also); this fits rather close to the neck; the pendant may be omitted. 53. Nám, an amulet, round or star-shaped, suspended from a twist of coloured silk thread fastened round the neck by tying at the back (see Júgni). 54. Táwíz, a square amulet, jewelled or otherwise. Tokhli, a flat square plate engraved with figures. 55. Nainkel, a chain of twisted silk, from which depend by little golden loops, various coins, amulets, etc., all round. 56. Zangiri, a set of charms. 57. Chandarmáh, a large gold flat medal suspended by a single ring on a silk chain or cord. Women's: 58. Chandanhar, a collar or necklace of a great number of chains. 59. Málá-hár, a plain necklace of pearls or gold beads, etc., hanging down long. 60. Champákali, a necklace like a collar with pendants, etc., described under "Derajat" ornaments. The pendants or rays are either plain metal or set with stones. 61. A single jewelled pendant, hanging from a necklace of silk, like the Nám only more elongated in shape. 62. Mohrán, a gold mohur or coin hung by a silk necklace. 63. Hauldil, a sort of amulet of jade; cut square as a táwíz always is, but in curves round the edge; this word is also used for bead necklaces, of false jade, etc. 64. Saukan-mohra, a small medal or coin worn like No. 57. 65. Hassí, or hass, like a torque, a ring or collar of silver, thick in the middle and thin at either edge. 66. Gala-band, a jewelled collar. 67. Mohanmálá, a long necklace made of long gold beads, with an interval of gold twisted thread between each bead. 68. 'Atrdán, a square jewelled or plain gold pendant, attached to a silk chain; at the back is a small box like our vinaigrette, to contain 'atr or perfume. 69. Kandí, a chain of silk carrying amulet cases. 70. Silwatta, an amulet case shaped like a small gold pillow or bolster, with two rings attached to suspend it.

VI. Arm Ornaments.—71. Bázuband, a broad belt-like ornament, generally mounted on silk and tied on the upper arm. 72. Nau ratn is the same; the ornament consists of a band of nine gems set side by side and tied by silk ties. 73. Táwíz, an amulet worn on the upper arm. 74. Anant ("the endless"), a large thin but solid ring of gold or silver, chiefly used by Hindus; the same idea is symbolized by a snake ring in which the serpent's tail is in its mouth. 75. Bhawatta, a square gold ornament, worn on the upper arm.

VII. Bracelets.—Men's: 76. Pahunchi, worn on the wrist; a series of shells or small gold elongated beads. 77. Kangan, kara or gokru, a bracelet of stiff metal worn bent round the arm; when the edges are serrated it is called "gokru." Women's: 78. Pahunchian katbi. 79. Pahunchian Chuadánti (rat's teeth). 80. Pahunchian Iláchidána (grains of cardamoms). 81. Kangan or Kara Zánana (bracelets made especially for women). 82. Bánká, thick gold bracelets; Hindus wear them. 83. Gokrú (as before). 84. Gajra, a flexible bracelet made of square gold studs mounted on a silk band. 85. Chúri of sorts, as for example, Kantakhárat, Churas, Kangani-dar; they are generally made of a flat ribbon of gold or silver bent round. 86. Bani, or long sleeve or tube worn on both arms, like a lot of chúris fastened together. 87, Bain, an armlet, broad and heavy. 88. Jhankangan, small hollow káras, with grains introduced into the hollow to rattle.

VIII. Finger Rings.—89. Angushtri, a ring set with stones called also Mundri (Hindi) or Angúthi. 90. Chhalla; large chhallas are worn on the toe also; the chhalla is a quite plain "hoop" ring (with or without stones), being gold or silver, but the same all round. 91. Angushtárá or angúthá, a big ring with a broad face, worn on the great toe. 92. Khari panjangla, a set of finger rings of ordinary shape. 93. Shahálamí or Khári, a ring of long oval shape. 94. Birhamgud, a broad ring.

IX. Anklets, &c.—95. Paizeb, various ankle ornaments made with chains and pendants of silver, which clink together when the wearer walks. 96. Chánjar, a large hollow ring, which rattles when the wearer walks. 97. Karián-pan or Khalkhal, like karas, worn on the ankles. 98. Khúngru, a ring or anklet of long ornamental beads of silver, worn on the feet. 99. Zangírí, a set of chains with a broad clasp, called also Tora. Mr. Baden Powell gave local lists which it is not thought necessary to reproduce.

The Panjab has long been noted for the application of gold and silver wire to steel, or damascening in those metals. The art is practised also very extensively in Rajputana, and in both Provinces was formerly chiefly employed for the enrichment of the hilts, pommels, scabbards and sheaths of swords or daggers, and parts of other

weapons. In the Panjab, and particularly at Sialkot and Gujarat, this style of decoration was applied to ornaments, usually of purely European character, such as brooches, crosses, etc., which had a large sale amongst British residents and tourists. One or two illustrations of the manufacture are given.

There are two chief varieties of such damascening: the first, the *tah-i-nishan* or true; the second, the *kuft* or false. In the former, soft gold or silver wire is forced into deep channels which are cut in the steel, and the work is completed by hammering and polishing. In the latter the wire, or even leaf gold or silver, are made to adhere to the metal ground by means of slight grooves or hatches which are cut in it, or even, in cheap work, by some adhesive substance, and are then filed or polished, as in the first case. In 1892, in my book on "Damascening on Steel or Iron as practised in India,"[1] I described the processes at full length, and gave a history of the art. The art, indeed, is of great antiquity, as proved, for bronze, by specimens in the British Museum, of Egyptian workmanship of the XIX. Dynasty, B.C. 1300-1250. I include in the illustrations some of these, viz., No. 29 (16037), a bronze ægis of Ra inlaid with gold, from the bars of a sacred bark. On the front, inlaid in gold, is the cartouche, the prenomen of Apries, king of Egypt about 590. It was presented by Professor Petrie in 1885. Also No. 32 (2277), the bronze figure of a king, with feather-work tunic inlaid with gold, in the character of AnHer; fine work. I noted that Mr. Baden Powell, in his work on the "Manufactures of the Panjab" (already so much quoted), observed that "Mr. Spence taught the armourers at Sialkot to be more careful in finishing their work by attending to the undersides, which had heretofore been very roughly done, and by electro-gilding." It appears also that Mr. Spence introduced inlaying in bronze, thus reverting to the very earliest forms of damascening. It must be admitted, however, that damascening on steel, iron, or even bronze, is not very well suited for personal jewellery, though quite in place for the decoration of salvers, jewel-caskets, and arms and armour. Splendid specimens of the latter articles, which were inlaid in Venice, Milan, etc., will be found in most of the great European museums and armouries. The art takes its present name from Damascus, where it was most successfully practised. Timur, who conquered that ancient city, is said to have dispersed art-workers throughout Asia, and thus damascening, like other arts, might have been revived in India, if it was not a new introduction.

A short time ago, European ladies purchased necklaces of two or more strings of jade-like beads, which were cut at Bhera in the Shahpur District of the Panjab. These beads were really made of a kind of "plasma," according to some authorities, which is described, however, by H. A. Miers in his "Mineralogy" (from which work this and some of the following remarks are taken) as a leek-green chalcedony. These beads were sometimes combined with others of different varieties of the same mineral, which is described as an apparently amorphous form of translucent silica of a waxy lustre. Thus, for example, of the coloured kinds we have carnelian, red; bloodstone, or heliotrope, plasma spotted with blood-red jasper; agate, a banded and variegated modification; and onyx, a form of agate "in which the successive layers are parallel bands sufficiently flat to fit them for use as cameos." Lapis-lazuli, a soda-lime-alumina silicate, which is really a rock, is also used. So, also, are varieties of quartz—such as jasper, a mixture of quartz with red or yellow hydrates of iron or clay, so as to make the base opaque and creamy, with deep red and rich yellow colours, or, as in riband jasper, consisting "of parallel straight bands of reddish-brown and sage-green material." Rock crystal, the colourless glassy quartz, is also made into beads; and the coloured varieties, such as amethyst (violet quartz), rose quartz, are cut into gems and ornaments. Coloured precious stones of this base, which are cut into beads of different shapes and threaded in various ways as necklaces and bracelets, are sold in large quantities by travelling pedlars or boxwallas to Europeans in North India, and especially in the hill resorts, where people are easily tempted to buy anything that is curious.

Flat slabs or plaques of turquoise are sometimes used as necklace pendants or amulets by Mohamedans, in which case they are generally inscribed with some cabalistic or other sentence in Persian, or a text from the Korán in Arabic characters. Many of these stones, especially the jaspers, sards (brownish-red horny chalcedony), onyx, etc., are cut into seals at Delhi and elsewhere in the Panjab and United Provinces. Many of the stones above mentioned are not found in the Panjab, but most of them for a long period have been easily procurable in the Province, especially lapis-lazuli and turquoise, of which the principal sources were, for the former, in Badakshan, above the valley of the river Kokcha which flows into the Oxus (the quarries were visited by Marco Polo in 1271). The best specimens of the latter come from Nishapur in Khorasan, a province of Persia. Chalcedonies of different kinds, and especially agates, are imported from Ratanpur in the Rajpipla State, in the Bombay Presidency.

One of the most interesting recent discoveries in our area has been that of sapphires in the the territories of the Maharaja of Jamu and Kashmir. Mr. Streeter, in his "Precious Stones and Gems," gives a full account of this interesting find. He quotes the descriptions of Messrs. Mallet and La Touche in the "Records of the Geological Survey of India." A Bhot (Tibetan) Lama or monk is said to have first found a blue vein in the

[1] Published by W. Griggs & Sons, Ltd.

rock, and to have broken off specimens and sold them to traders. Later on, the stones were found near the Lacha Pass, beyond Kulu, by a native who loaded a hundred goats with them and tried to sell his spoil, but without success, in Simla. Ultimately he succeeded in Delhi, where the smart jewellers recognized the value of the stones. The quarries are now guarded by the servants of the Kashmir chief.

As regards the "plasma," or false jade, at Shahpur, Mr. Kipling remarks that it is not yet settled by geologists that it is a true plasma. I am indebted for this observation to the painstaking work (written in 1888) of an old friend, Babu T. N. Mukharji, F.L.S., of the India Museum, a copy of which he was kind enough to give me. I have not hitherto studied this valuable book in the compilation of the present articles, but will make up for any deficiency by quoting from, or referring to, it largely in future. He remarks that besides the hauldilis or necklaces of false jade, which are made by the lapidaries of Bhera, necklaces of all sorts, stones for rings, bead bracelets, etc., are manufactured at Amritsar. As regards the false jade, he quotes Mr. Kipling as follows:—"The green jade-like stone used at Bhera has not yet been assigned its proper name; it is not true jade, nor do authorities on the subject admit it to be plasma. It is said to be found near Kandahar and to be brought down the river Indus on rafts floated with inflated skins to Attock, whence it is carried to Bhera." Necklaces, knife handles, sleeve links, paper knives, etc., are made and sold at Amritsar by Kashmiris who have settled in that town. These are mostly of carnelian and jade. It was suspected that many of the articles were really imported. It must be remembered that Amritsar is now a great trade centre. Possibly, he adds, the carnelian articles came from Cambay.

The following is a summary of miscellaneous information collected by Mr. T. N. Mukharji on this subject. He quotes Mr. Kipling very largely, as for example, on Delhi jewellery. The latter observes that "The chief characteristics of the best Delhi jewellery are the purity of the gold and silver employed, the delicacy and minuteness of the workmanship, the taste and skill displayed in the combination of coloured stones, and the aptitude for the imitation of any kind of original on the part of the workmen." On the other hand, there is a tendency to flimsiness and gaudiness, and, as a result of competition, a falling-off in purity of the metal. In addition to native ornaments, Delhi produces many articles for European work, such as gold bracelets, gold settings for the miniature paintings on ivory which are prepared in that capital to be worn in bracelets, pendants, brooches, etc., filigree brooches, mat-pattern belts, rings set with precious stones, etc. Mr. Kipling adds that there is scarcely anything called jewellery that cannot be imitated in Delhi, so that varieties not belonging to the locality are copied. This, as I have frequently written, is much to be lamented, because it leads to the application of unsuitable decorative ornament to wrong forms, careless and ignorant work, and confusion of styles—a misfortune which has been greatly increased by the interference of European as well as Indian middlemen. Mr. Kipling states, for example, that Madras Swami work is coarsely imitated, whatever merit it possessed as hand-work being spoiled by its production by dye-stamping. Lastly, he notes that "The almost invariable feature of Delhi work is a thin shell of gold incrusted with better gold, or with stones of some kind, and afterwards filled with hard lac. The enamel work is often spoiled by being done on gold too thin to withstand, without distortion, the heat of the enamel fire." In a former article reference was made to the poor colours of Delhi enamels and especially to the inferiority of the reds.

Babu T. N. Mukharji mentions the peculiar kind of necklaces which are made of thin silver beads at Pánipat in the Karnal District. Articles of the kind would be dispersed from such a centre very rapidly over India, for it is a much frequented place of pilgrimage, at or near which is the holy battlefield of Kurakshetra, where the Pandavas and Kauravas are said to have fought in those early times which are commemorated in the Mahabharata, one of the great epic poems of India. Here Baber, in 1525, won the victory which established the Moghul empire in India; and here, in 1761, Ahmed Shah, the Afghan, crushed the Mahrattas. The news of this last defeat was brought to the Peishwa, on the Narbada river, in a letter which ran thus: "Two pearls have been dissolved, twenty and seven gold mohurs have been lost, and of the silver and copper, the total cannot be cast up." From the figurative words, expressed in terms which shew the importance attached to gems and valuables, the fate of the principal Mahratta officers and their followers was understood.

Delhi is also, it seems, famed for the stringing and arrangement of its glass beads, and the best quality of glass and lac bangles; some of the former of which are also coated with lac and ornamented with tinsel and bits of coloured glass; the latter with spangles or beads. The lac bangle trade is almost entirely in the hands of women. Ivory combs are made at Amritsar and Sialkot in the Panjab, and especially at Páli in Marwar, or Jodhpore in Rajputana, where the industry is ancient, as might be easily understood from the observations in previous papers. Sir G. Watt, in referring to the false jade of Bhera, states that it has been classed rather "as a very pure form of serpentine called Bowenite"; and that it is known in the vernacular as sang-i-yeshm. It is softer and more easily worked than the jade which forms so important an article of import trade with Burma. The

Jaipur jewellers certainly used the words sang-i-yesham or yasham for true jade.

Very curious ornaments are necklaces of the cubical crystals of rock salt, which the miners make at the Mayo Mines in the salt range at Khewra, near Pind Dadan Khan in the Panjab, or those of imperfect octahedral form which crystallize out of the salt lakes of Sambhar or Pachbadra and other sources of the kind in Rajputana. Both are strung on coloured threads and finished off with tassels. The beautifully decorated tombs and palaces of the Moghuls at Lahore, Delhi and Agra, which are lavishly ornamented with inlays of precious stones and gems of many kinds, prove that there has been no difficulty in obtaining an infinite variety of such beautiful objects in the regions of which we are treating.

The great part of the peasantry in the plains of the Panjab are Jhats, who either profess the ordinary faith of Hindus, of a somewhat lower type than in the rest of India perhaps, or who practise, as Sikhs, a more severe cult. They are nearly all cultivators and are comparatively rude in their habits, customs and thoughts. Any taste for jewellery which they may possess is therefore somewhat of the barbarous in character, and the style of their ornaments is coarse and heavy, making up for its want of refinement by its weight and the profusion in which it is used. The Hill people also love quantity rather than quality, though some of the ornaments of the women are unique and somewhat attractive in form and character, being strongly tinged with the styles in vogue in the Trans-Himalayan countries, especially in the association of silver with coral and the turquoise. The fashions are not necessarily so local as might be supposed, because traders penetrate the recesses of the valleys from both sides of the mountains, and one or other of a woman's husbands in these polyandric regions is usually abroad in search of work, and often returns to lay some of his spoils before the wife of himself and his brothers.

The town dwellers, whether Mohamedans or Hindus, whether artizans or distributors, such as the Baneahs; the professional classes, such as the pleaders or local lawyers and officials; and the nobles and their families use jewellery which is very similar to that worn by the people of similar classes and occupations in the United Provinces and Rajputana; though, on the whole, from the continuous absence of a cultivated and refined Court, and from the strain of warfare in recent times, much less luxury has prevailed. There are fewer old families in the Province than elsewhere, and also few men of great wealth. It was not always so, however, as for example, one reads of the great treasures which were once stored up in the fort of the ancient Hindu Rajas of Kot-Kangra in the Kangra Valley.

DESCRIPTION OF THE ILLUSTRATIONS IN PART IV.

Plate 36.—250. Oil painting. The portrait of a Hindu lady shewing the mode of wearing jewellery. The original was painted for the Amritsar Municipality by a native artist. [I.M. 45 of 1886.]

Plate 37.—251. Cross; gold filigree and carbuncles. It was made before 1872, and is a good example of a class of work which was well executed in Delhi about that period. 252. Cross; steel inlaid with gold wire; An example of Kuft work from Sialkot. Iron and steel have too little intrinsic value to be extensively used for jewellery. They have also the defect of soon rusting; moreover, in nearly all modern examples too much of the surface is covered with decoration. 253. Necklace of cut garnets strung on thread. This specimen was made at Jaipur, where, a few years ago, more lapidaries were employed than at present, because there was then an extensive industry under State patronage, which has now been withdrawn. Many of these stones, however, have always been cut, polished, and set in Delhi. 254. Necklace of green beads (Plasma) strung on thread. Cut at Bhera, in the Shahpur District of the Panjab. A lengthy description of the work of the lapidaries at Bhera has been given already. Nos. 251 to 254 were copied from originals which were lent by Mrs. Hendley. 255. Brooch; gold and carbuncles. Roman, from the British Museum; 1st to 5th century A.D. This is the specimen noticed on pages 37 and 38, Part III. (No. 96, Vol. XII. *Journal of Indian Art and Industry*). It is referred to by Dr. Church as a delightful example of the use of carbuncles. 256. Charm; lapis-lazuli set with gems. Delhi. Lent by the author. It is rather an unusual example of an Indian mascot. 257. Flat bead; jasper. Found at Nagar, Jaipur State. Probably Buddhist.

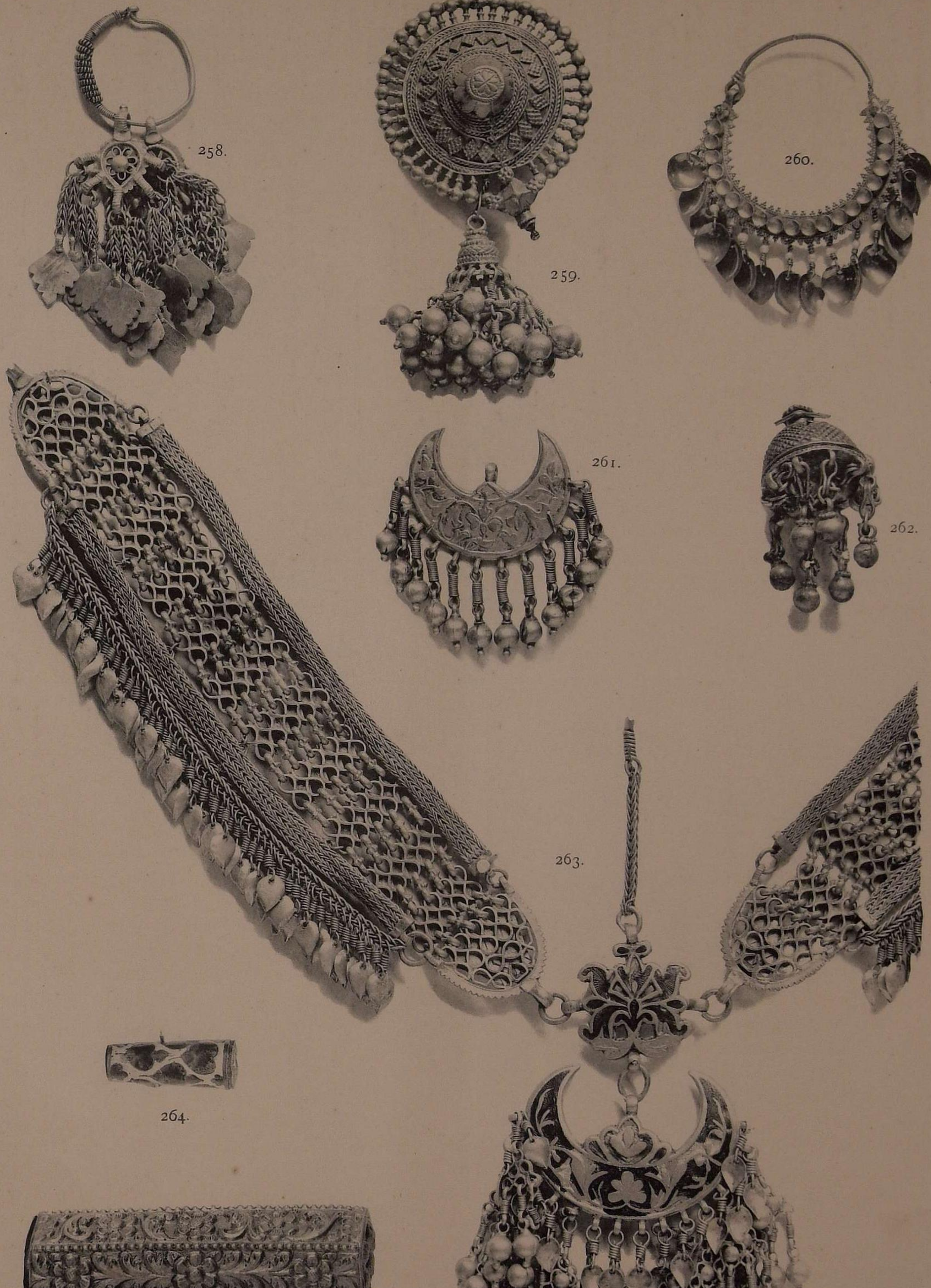
Plate 38.—258. Earring, silver, Charka Bunda Báli. To the ring are attached two heart-shaped pendants from which small leaf-shaped plaques depend by chains. Chamba. The Hill State of Chamba lies beyond Dalhousie in the Panjab. The chief town of the same name is most picturesquely situated on the banks of the river Ravi. There is an intimate connection between this State, on the one hand, through Badrawár and Kishtwár with the Kashmir Valley, and, on the other, with the Kangra and Kulu Valleys. It will be noticed that the leaf-like pendants which are found in the earring are characteristic of some of the ornaments from these neighbouring districts. [I.M. 2530.] 259. Earring, Dhedu Jhumka; silver. The upper part is a cone decorated with applied ornament with a ring of knobs round the outer edge. Worn by women at Bamaur, or Barmaur in the Chamba

State. Here we have grape-like drops, but the chains from which they hang are like those made in the Hill States. [I.M. 2556.] 260. Earring, Bálá; gold with sixteen pearls attached to a concave drop. Gujranwala, in the plains of the Panjab. The leaflets are not unlike those of an old Egypto-Roman necklace in the British Museum. [I.M. 130.] 261. Pendant, Chandro, also used as a Tika or forehead ornament; silver. Chased crescent with a row of small pendants from the lower edge. Probably from Barmaur. The embossed ornament on the front of the crescent is made pretty generally by Panjab jewellers. [I.M. 1137.] 262. Ear-drop, Jhumka; silver. Kangra. The Kangra Valley was the seat of a very ancient Hindu family, and is celebrated for the fort of Kot Kangra, which in former times was almost inaccessible. Adjacent to it is the town or village of Bhawan, so called from a famous temple which is visited by many pilgrims. Not far off is the temple at Jawala Múkhi, which also has many visitors on account of its burning gases, dedicated to the goddess Devi (the words Jawala Múkhi mean "flame-tongued"—hence "volcano"), and here also come many persons to undergo an operation for the restoration of their noses, which have been mutilated, by the so-called Indian operation in which a new organ is formed out of the patient's forehead. Wherever pilgrims or visitors come to renowned spots, they bring outside influences with them and they also find jewellers and others at hand to minister to their necessities, thus Kangra fashions have been widespread, especially in the Hills. [I.M. 343.] 263. Head ornament, Tara or Dauni; silver. It consists of two wide bands of wire links, each having one chain along the upper edge and two on the lower. To the lowest chain small leaf-shaped ornaments are attached. The two bands are connected by a blue and green enamelled plaque, hanging from which is a crescent-shaped ornament, also enamelled and decorated with small leaf pendants. Several ancient forms of work are found in this ornament; as, for example, two broad bands of linked chains, such as may be seen in the necklaces of the finest Greek period in European museums; a wide band of links forming the bulk of the side pieces; other varieties of chains, shell-like leaves, and grape pendants; and also the crescentic form of the Tika which hangs over the forehead. The silver enamel of the Kangra Valley is coarse, but effective. [I.M. 1115.] 264. Ear-plug, Kulu; gold enamel set with four rubies and an emerald. Ear-plugs are perhaps more usually found beyond the Panjab. [I.M. 690.] Kulu is the beautiful valley on the upper waters of the Beas river, Kangra being the wider expanse on the lower part of the stream. It communicates by means of the high Rotang Pass with Lahaul and Leh in Ladakh, a Kashmir province, and so with Tibet, bringing in Central Asian influences, as seen perhaps in No. 265, an amulet case of embossed silver, patri (probably patri, patra, Sanskrit for a plate of metal), such as might be worn by a woman of one of the tribes described by Ujfalvy. [I.M. 1906.]

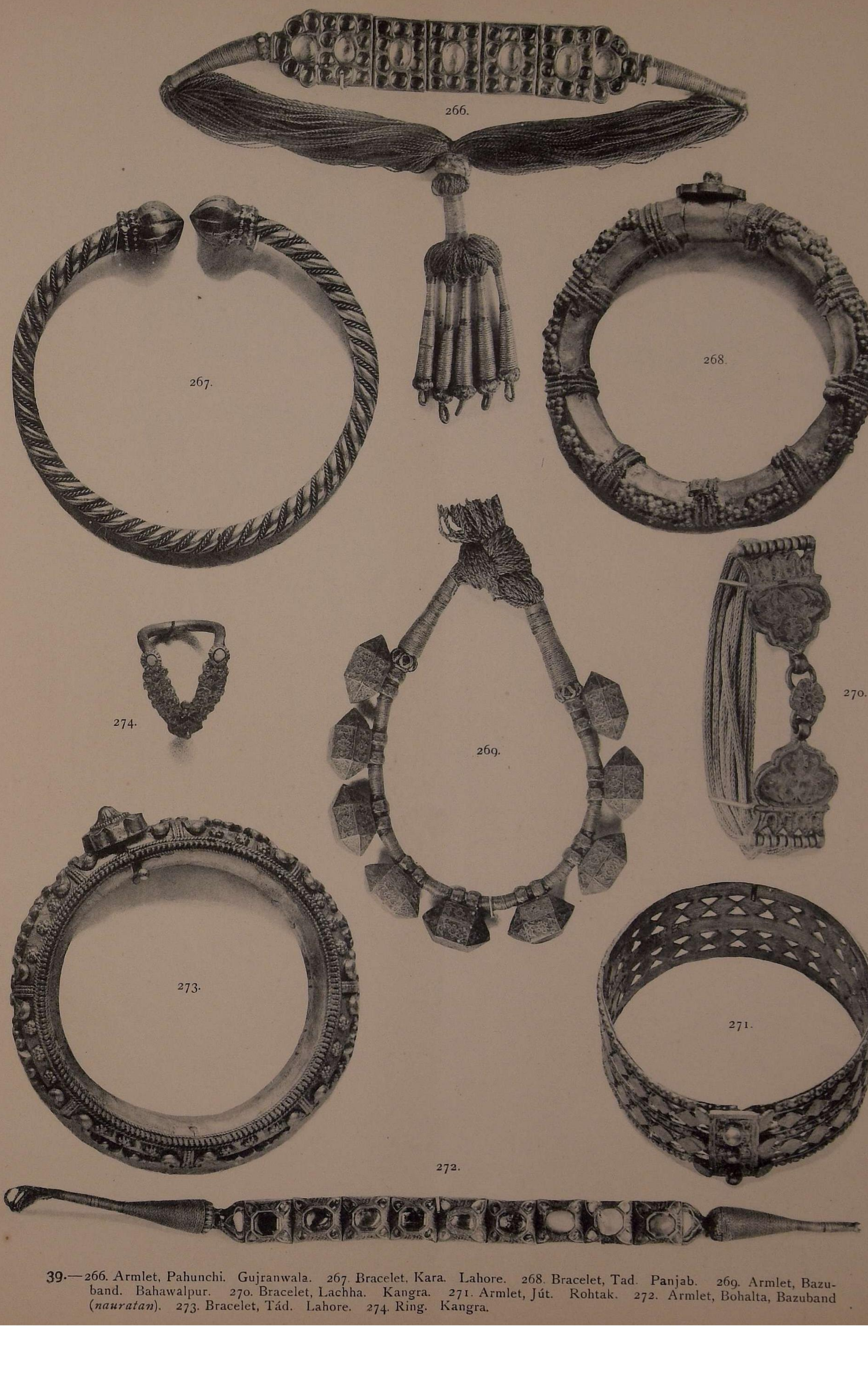
Plate 39.—266. Anklet, Pahunchi, consisting of five plaques of embossed gold set with imitation stones. Gujranwala. [I.M. 145.] 267. Bracelet, Kara. Penanular; ornamented with spiral bands with a knob at each extremity. Lahore. [I.M. 1909.] 268. Bracelet, Tád; cast silver decorated with granulated ornament in compartments. Panjab. [I.M. 2094.] 269. Armlet, Bazuband, consisting of nine gold and green enamelled hexagonal ornaments, ending in hexagonal pyramids, attached to a cord of silk, with twisted ends of the same. Bahawalpur. [I.M. 023.] 270. Bracelet, Lachha, of eight chains of plaited silver, connected by links and plaques of green enamel on gold. Kangra. [I.M. 312.] 271. Armlet, Jút: silver, cast in form of three bands joined by two rows of diamond-shaped open-work ornament. Rohtak. [I.M. 1857.] 272. Armlet, Bohalta, Bazuband, of nine square plaques set with gems (*nauratan*) which are connected by threads united at the ends into thick conical cords by which it is fastened. 273. Bracelet, Tad; silver, decorated with applied floral ornament in compartments; fastened with a screw. Lahore. [I.M. 1915.] 274. Ring; silver, with V-shaped ornament and two pieces of coral. Kangra. Mr. Percy Brown remarks, however, that it is said to be a ring (Champa Kali) and to be worn in the United Provinces and Bengal and not in the Panjab. [I.M. 1967.]

Plate 40.—275. Armlet, Gokhru; silver, with radiating and spiral ornament. Dera Ismail Khan. [I.M. 501.] 276. Armlet, Gokhru; silver, with leaf-shaped ornament radiating from a floral band. Dera Ismail Khan. [I.M. 500.] 277. Anklet, Kangran; silver; closely linked rings. Dera Ismail Khan. [I.M. 476.] 278. Hollow anklet, Jhanjar. Blue and green enamel on gold, with serpents' heads connected by sitting birds. Beads are inserted inside for dancers, in order to tinkle as they move. Kangra. [I.M. 317.] 279. Necklet, Hasi; green enamel on gold. Bahawalpur. [I.M. 024.] 280. Bracelet, Bahi; silver. In two parts, connected by a hinge; perforated and chased in diagonal bands, with floral ornament. Kulu. [I.M. 1113.]

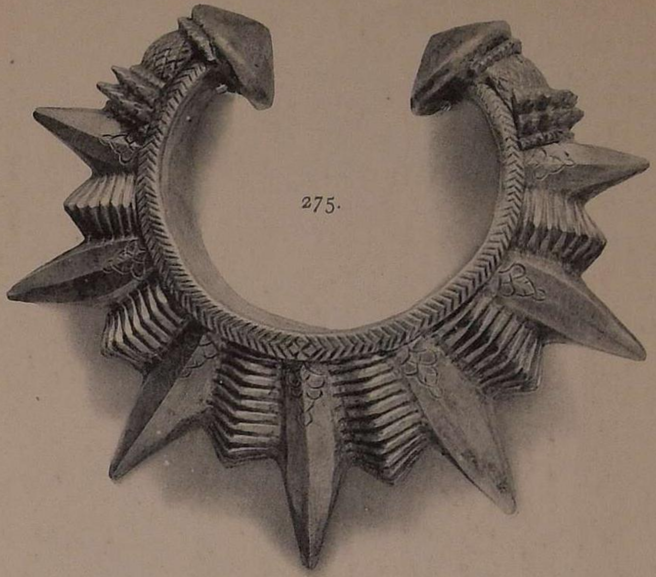
Plate 41.—281. Armlet, Bazuband; silver. It consists of twenty-one hollow convex ornaments with applied work strung on two cotton threads. There is an amber bead at one end of the thread. Chamba. [I.M. 2553.] 282. Armlet, Bazuband; silver, formed of sixteen hollow convex ornaments decorated with applied ornament, and strung on two threads backed with stout cloth. Chamba. [I.M. 2554.] 283. Necklace, Mala or Kantha; silver, consisting of two strings of long silver beads and small wooden ones. Sultanpur, Kulu. [I.M. 1123.] 284. Necklace, Galaband; silver. It consists of twelve silver ornaments decorated with applied work and set with



38.—258. Ear-ring, Charka Bunda Báli. Chamba. 259. Ear-ring, Dhedu Jhumka. Bamaur. 260. Ear-ring, Bala. Gujranwala. 261. Pendant, Chandro, also used as a Tika or forehead ornament. 262. Ear-drop, Jhumka. Kangra. 263. Head ornament, Tara or Dauni. 264. Ear-plug, Kulu. 265. Amulet case of silver, Patri.



39.—266. Armlet, Pahunchi. Gujranwala. 267. Bracelet, Kara. Lahore. 268. Bracelet, Tad. Panjab. 269. Armlet, Bazuband. Bahawalpur. 270. Bracelet, Lachha. Kangra. 271. Armlet, Jút. Rohtak. 272. Armlet, Bohalta, Bazuband (*nauratan*). 273. Bracelet, Tád. Lahore. 274. Ring. Kangra.



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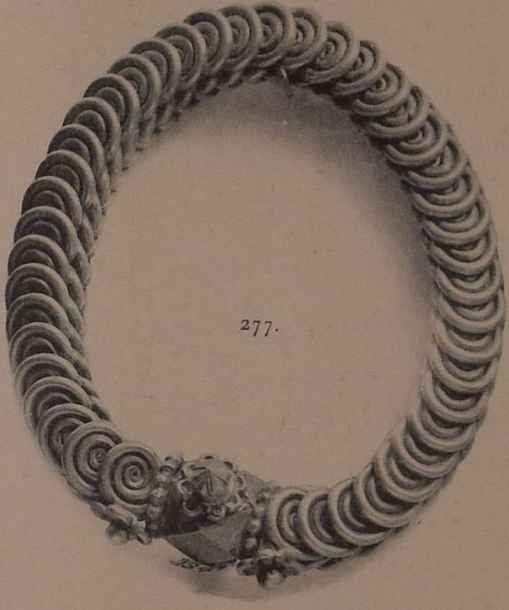

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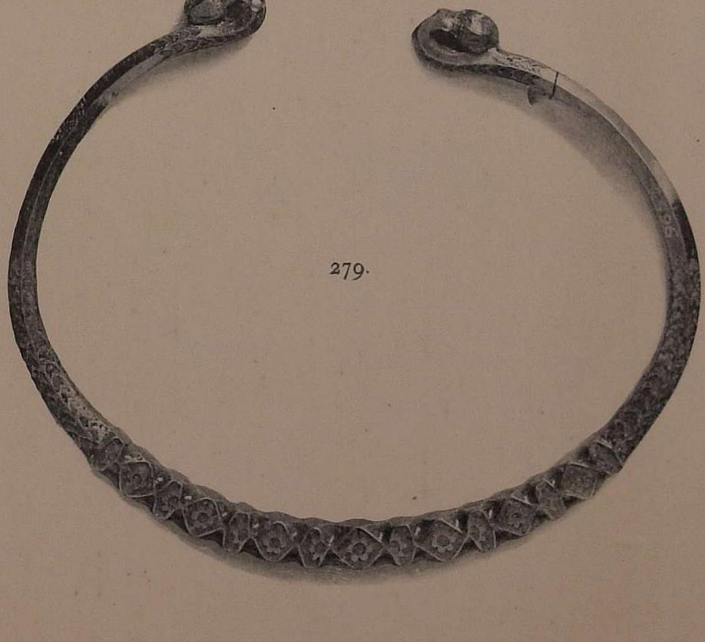

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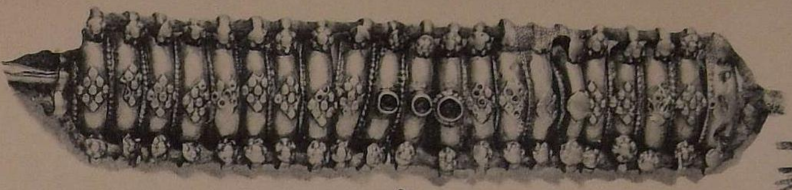
40.—275. Armlet, Gokhru. Dera Ismail Khan. 276. Armlet, Gokhru. 277. Anklet, Kangran. Dera Ismail Khan. 278. Hollow Anklet, Jhanjar. Kangra. 279. Necklet, Hasi. Bahawalpur. 280. Bracelet, Bahi. Kulu.



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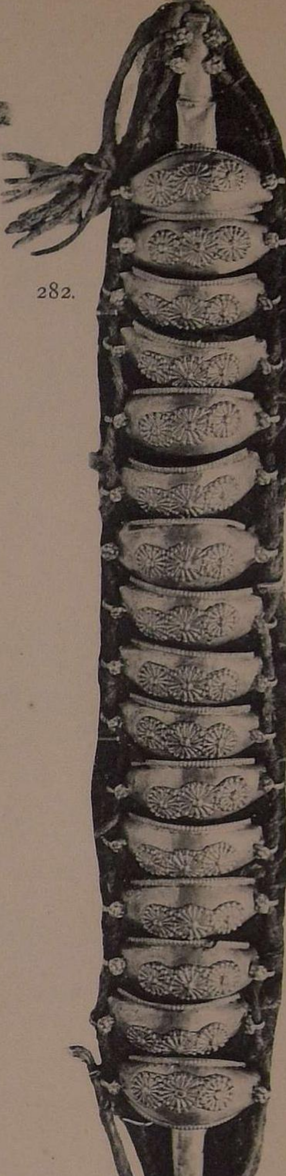

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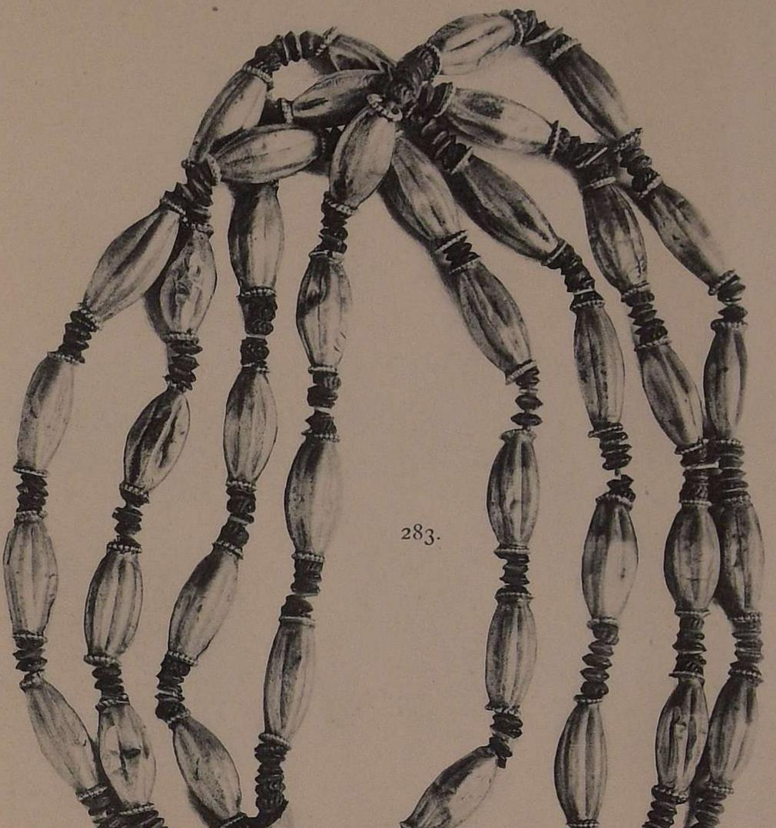

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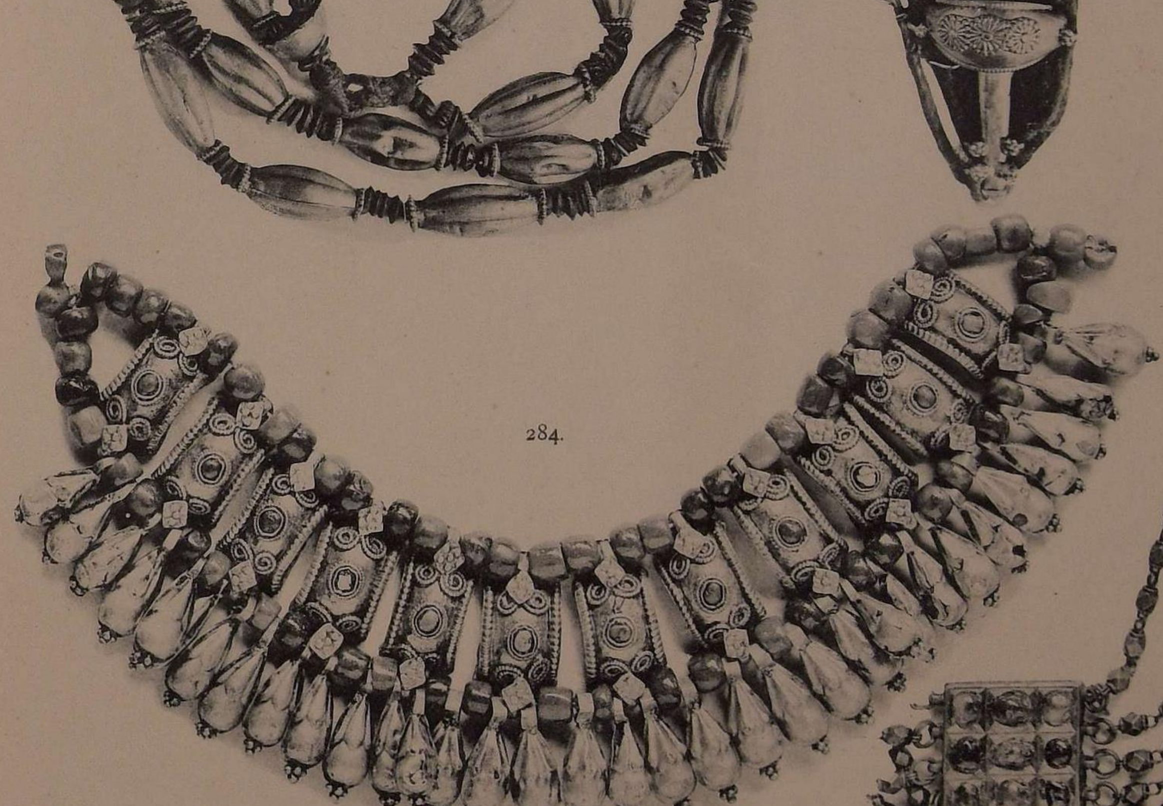

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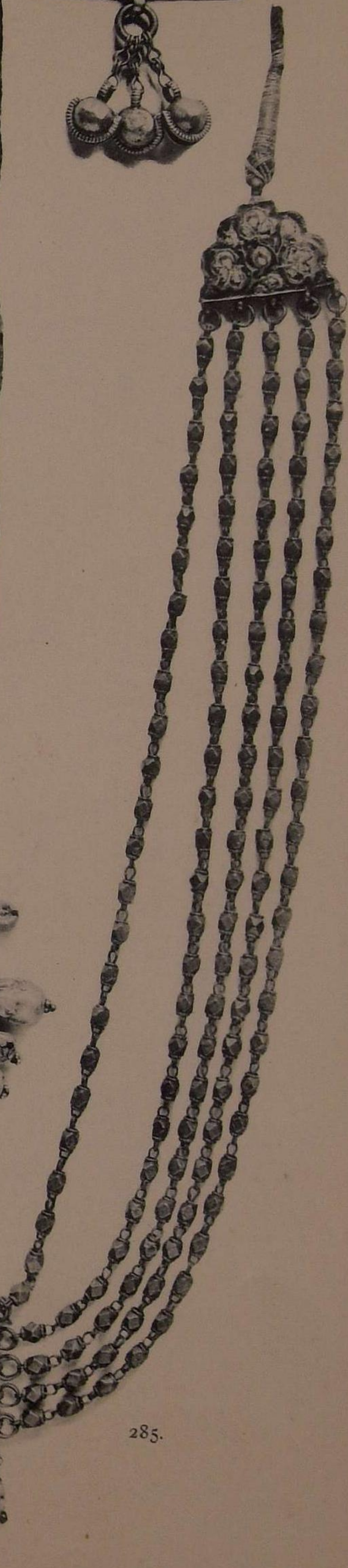

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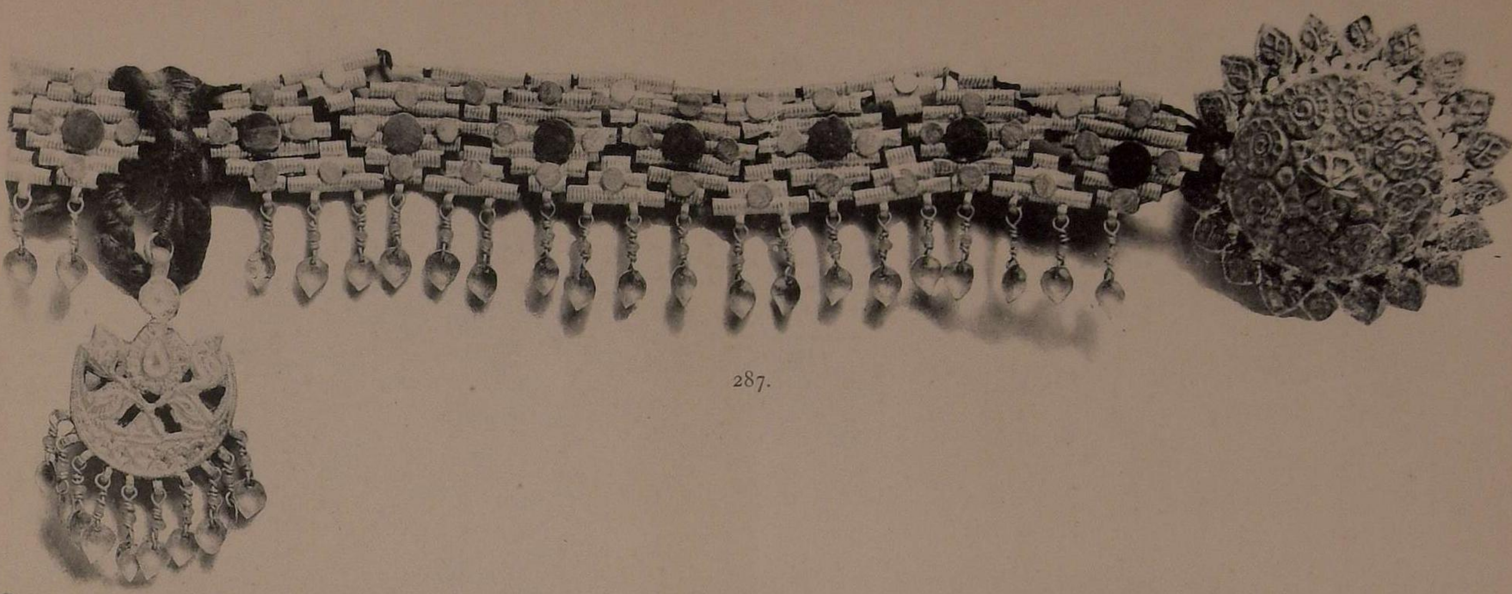
41.—281. Armlet, Bazuband. Chamba. 282. Armlet, Bazuband. Chamba. 283. Necklace, Mala or Kantha. Sultanpur, Kulu. 284. Necklace, Galaband. Leh, Ladak. 285. Necklace, Chandan Saini Har. Kashmir. 286. Pendant from necklace, Takhti or Parrian. Kangra.



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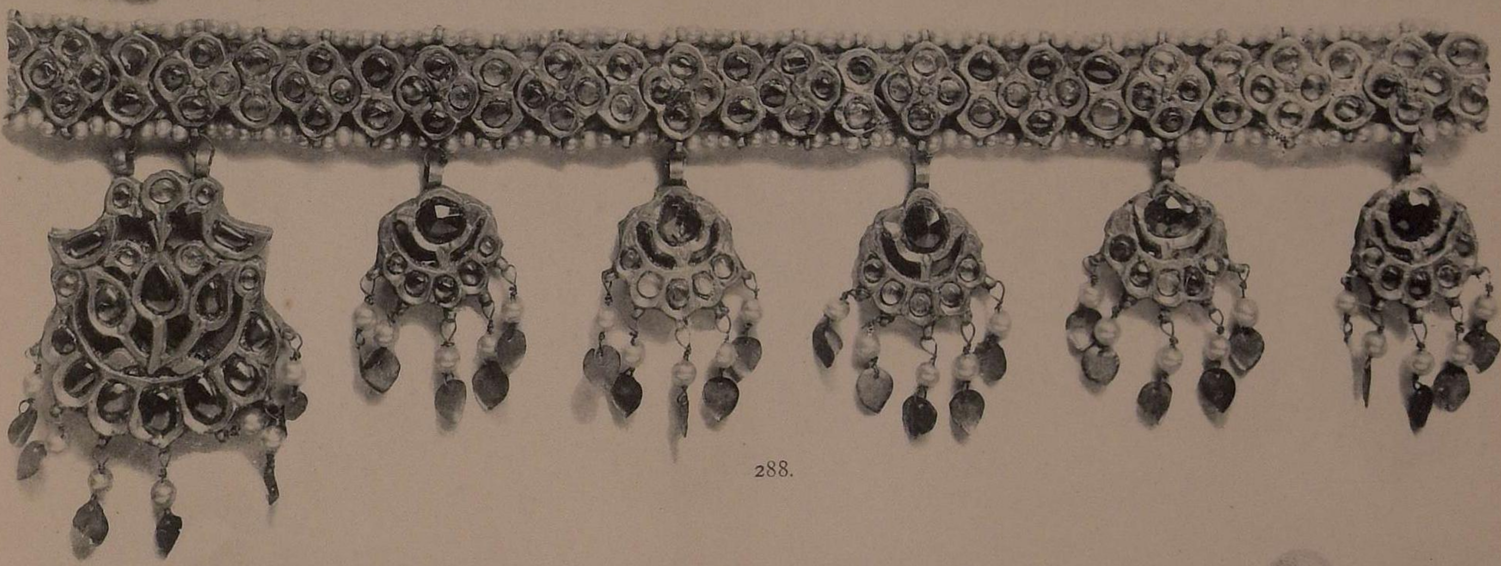

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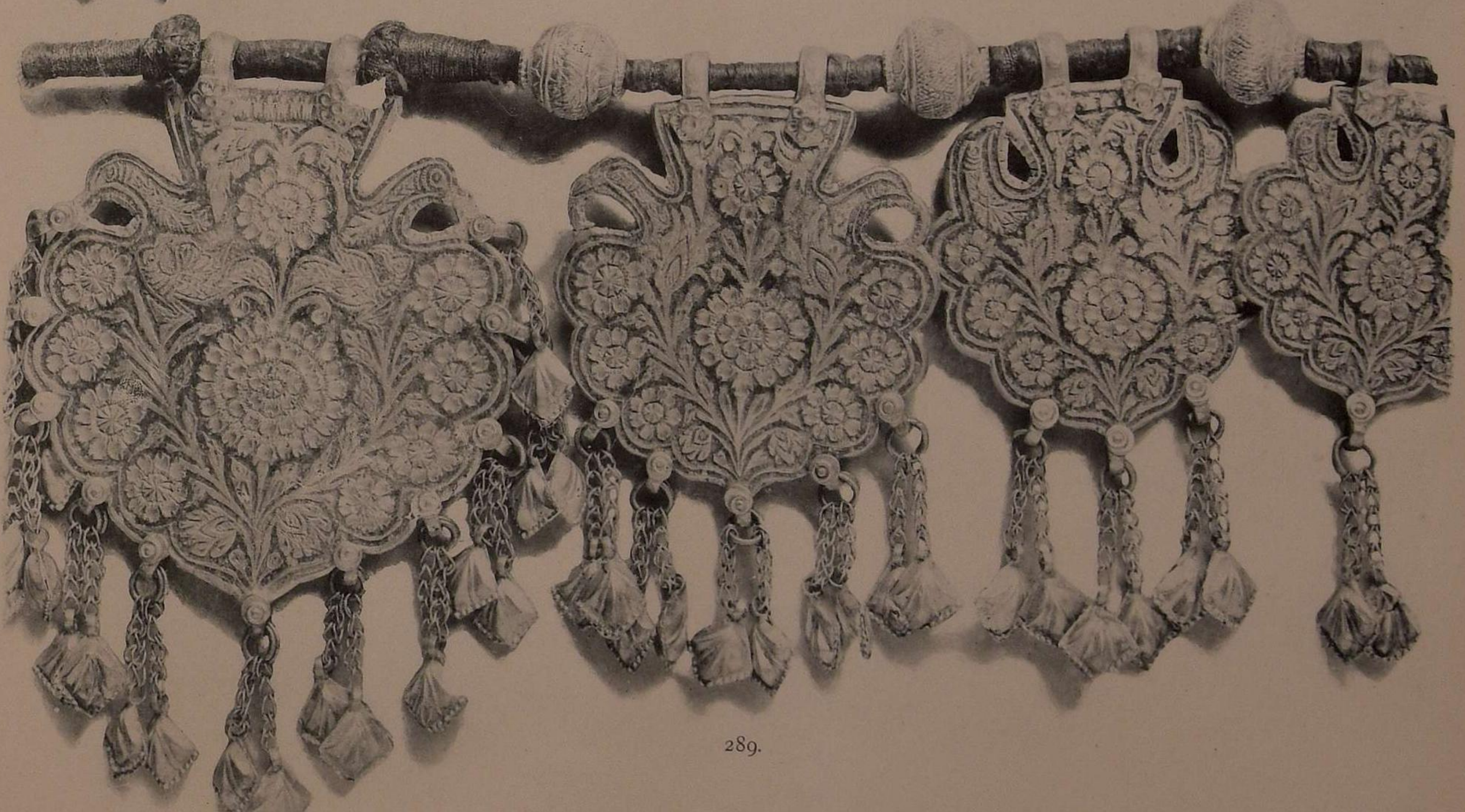

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42.—287. Forehead Ornament, Dauni. Hazara. 288. Necklace, Paunta. Srinagar, Kashmir. 289. Necklace, Hamail. Hazara.

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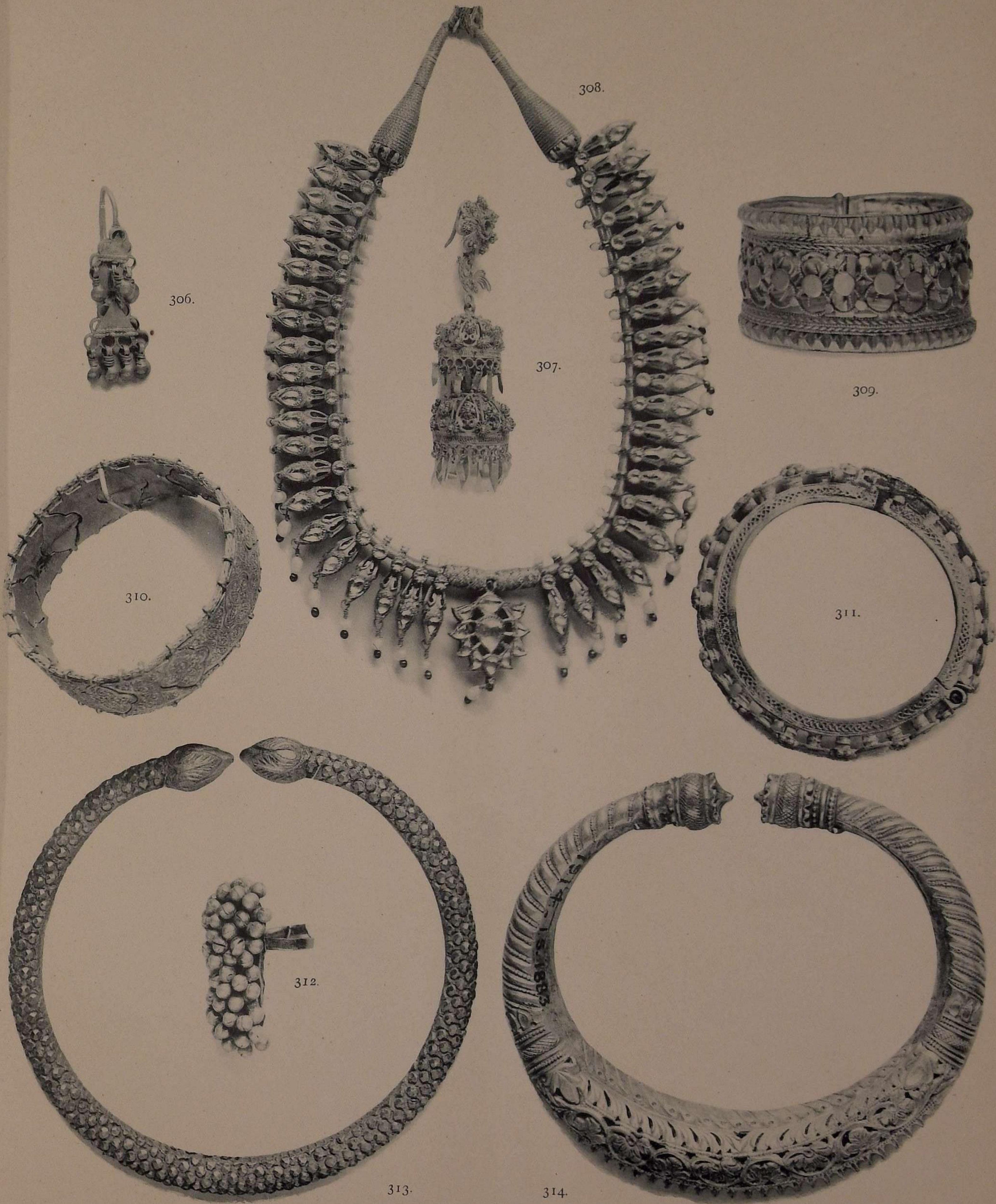
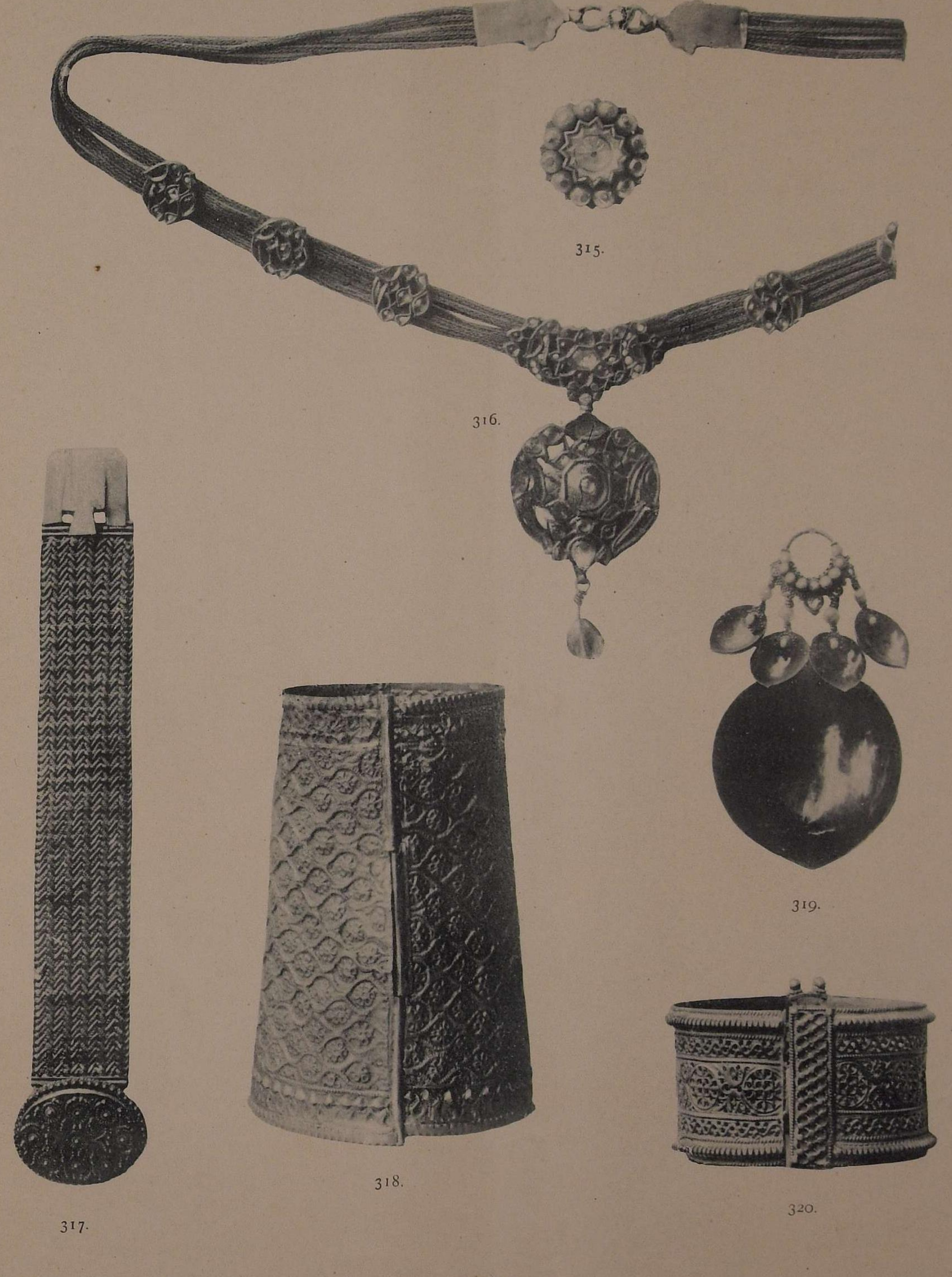
43.—290. Diagram shewing Ornaments worn upon the head, neck and chest by Hindu ladies in Rajputana, the Panjab, etc. 1. Rakhdi. 2. Chand 3. Bindi 4. Karanphul. 5. Pachmaniya. 6. Baleora. 7. Bhaunrya. 8. Morpatta or Jhela. 9. Musi. 10. Hansli. 11. Tawiz-ka-Kanthla. 12. Tawiz. 13. Mala. 291. Nose-ring or Nath. 292. Armlet, Bazuband. 293. Diagram of Ornaments worn on the arm. 1. Bazu. 2. Bata. 3. Tád. 4. Sar Ghundi.

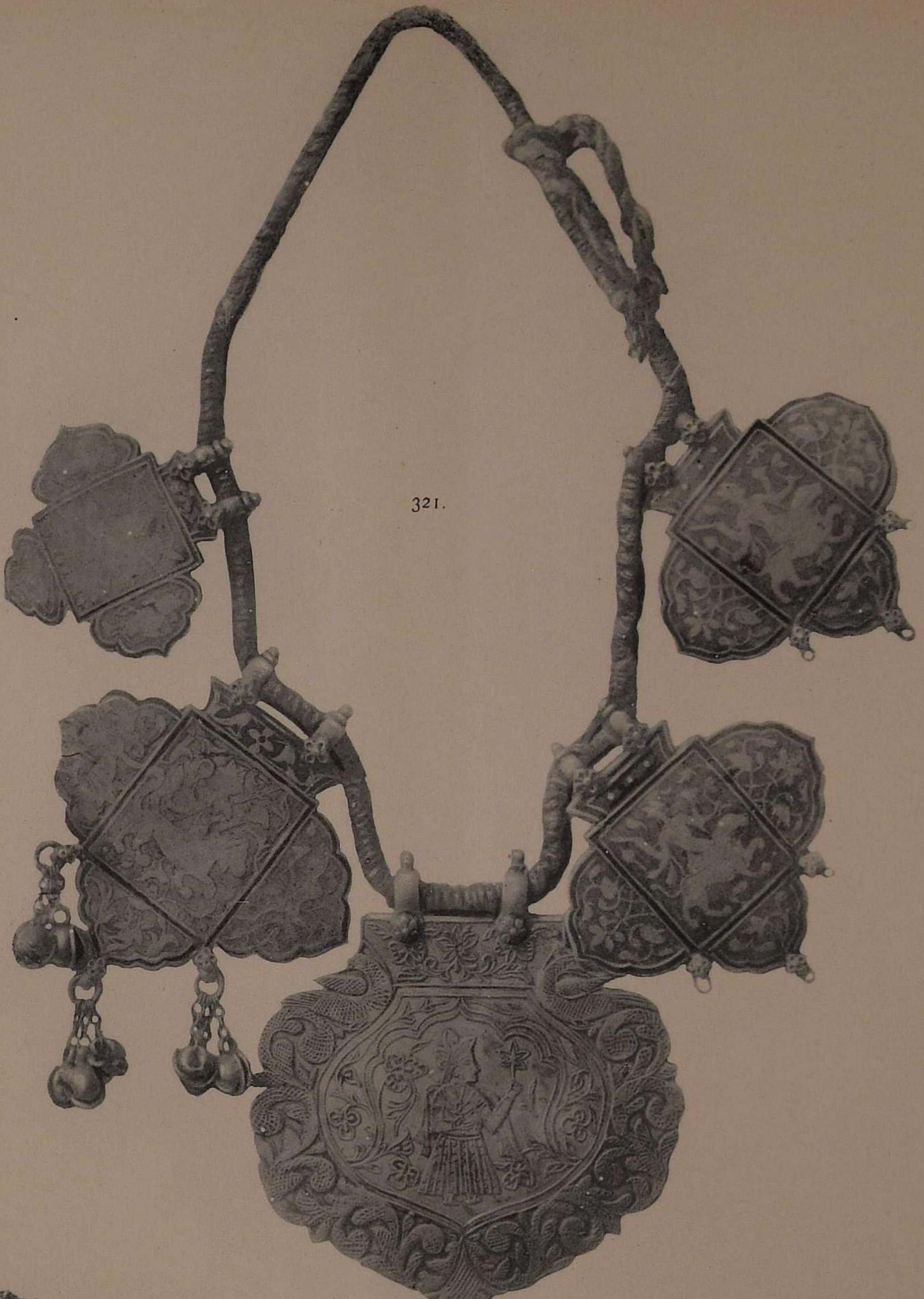
44.—294 and 297. Silver enamelled finger rings. Multan. 295. Plaque. 296. Shoulder ornament; silver-gilt. Delhi. 298 and 300. Silver enamelled rings from Karachi. 299. Ring; silver. Kulu. 301. Bracelet; silver. Lahore. 302. Bracelet; silver open work. Amritsar. 303. Boxes, Batwa, chains, and spoon of enamelled gold. Delhi. 304. Necklace of gold and precious stones. Delhi. 305. Ring; silver. Kangra.



45.—306. Earring, Karanphul; silver. Panjab. 307. Earring, Phul Jhumka; gold filigree. Delhi. 308. Necklace, Champa kali; gold gems and enamel. Amritsar. 309. Bracelet; silver filigree. Amritsar. 310. Bracelet; engraved gold plaques. Kashmir. 311. Bracelet; cast silver. Kashmir. 312. Toe ring; silver. Panjab and Rajputana. 313. Anklet, silver. Gujranwala. 314. Anklet, silver, chased and perforated. Delhi.



46.—315. Nose ring, Laung ; gold. Gujranwala. 316. Necklace, Nám ; gold and stones. Delhi. 317. Bracelet, Pahunchi ; gold. Delhi. 318. Wristlet, Bahi ; gold embossed. Lahore. 319. Nose ring, Bulak ; gold. Jamu. 320. Bangle, Jút ; gold pierced work. Lahore.



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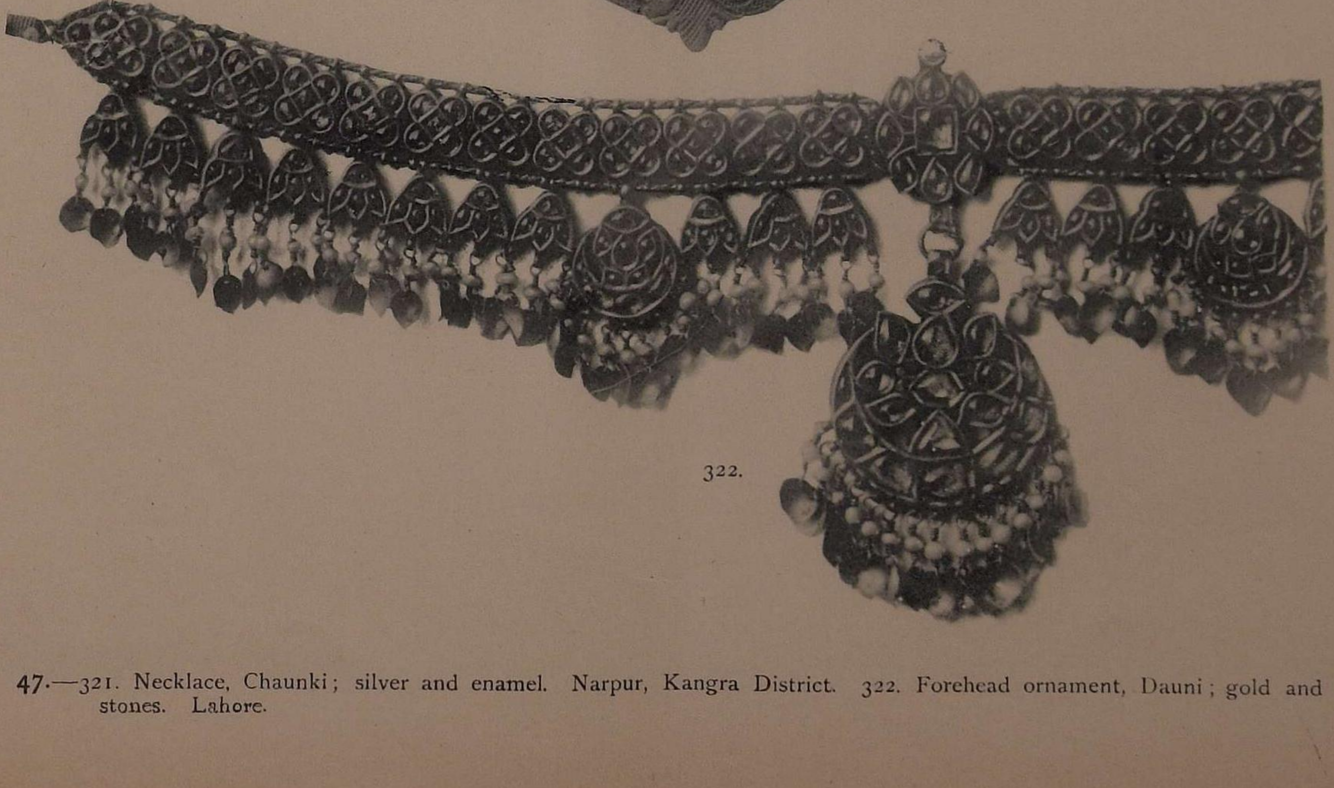

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47.—321. Necklace, Chaunki; silver and enamel. Narpur, Kangra District. 322. Forehead ornament, Dauni; gold and stones. Lahore.

turquoises strung together with two rows of coral beads and silver pendent ornaments on two threads. Leh, Ladak. [I.M. 1858.] 285. Necklace, Chandan Saini Har; red gold. A double row of five chains, formed of facetted beads united in the middle by an oblong plaque set with five precious stones, and having five pendants of seed pearls. At each end is an enamel fastening with a red silk cord. From the Annual International Exhibition, 1872. Kashmir. [I.M. 1001.] 286. Pendant from necklace, Takhti (a plate) or Parrian; silver. Oblong, chased with a representation of a deity with an attendant on each side, all under foliated arches. Three grelots, or hawk-bells, hang from a ring attached to the lower edge. Kangra. [I.M. 1135.]

PLATE 42.—287. Forehead ornament, Dauni; silver. It consists of pieces of silver made up of small tubes welded together and strung on seven black silk threads. At the ends are two circular discs, perforated, gilt, and enamelled in green. There is a row of small pendants ornamented with a larger middle one round the lower edge. Hazara. [I.M. 1854.] 288. Necklace, Paunta. [Mr. Percy Brown notes "it is said to be an anklet."] Gold set with rubies and imitation pearls. There are ten small pendants and a large centre one set with rubies to represent two birds among foliage. Imitation pearls and pieces of gold tinsel are attached to all the pendants. Srinagar, Kashmir. [I.M. 1162.] 289. Necklace, Hamail; silver. It consists of seven large plaques chased with floral ornament and enamelled, with pendants attached, strung on red silk cord. Hazara. [I.M. 1855.]

PLATE 43.—290. Diagram shewing ornaments worn upon the head, neck and chest by Hindu ladies in Malwa, Rajputana, the Panjab, etc. 1. Rakhi; 2. Chand; 3. Bindi; 4. Karanphul; 5. Pachmaniya; 6. Baleora; 7. Bhaunrya; 8. Morpatta or Jhela; 9. Musi; 10. Hansli; 11. Tawiz-ka-Kanthla; 12. Tawiz; 13. Mala. 291. Nose-ring, Nath. 292. Armlet, Bazuband. 293. Diagram of ornaments worn on the arm. 1. Bazu; 2. Bata; 3. Tád; 4. Sar Ghundi. The above ornaments have already been carefully described at length.

PLATE 44.—294. Finger ring; silver enamel. Multan. [I.M. 422.] 295. Plaque with pierced side-projections for threads, on which one or more pieces are strung to form an armlet or bracelet; silver enamel. [I.M. 421.] 296. Shoulder ornament, Baddhi, *h*. Four rows of embossed silver-gilt rosettes, connected by two medallions with scalloped edges. Delhi. [I.M. 282.] 297. Finger ring of silver enamel. Multan. [I.M. 423.] 298 and 300. Finger rings; silver enamel. Kurachi. Similar to Multan enamel. [I.M. 206 and 288.] 299. Finger ring; silver chain and V-shaped pattern. Dedicated to Narsingh, the man-lion incarnation of Vishnu. Sultanpur in Kulu. [I.M. 1131.] 301. Bracelet; silver, formed of a serpentine band with the enclosed spaces filled in with open-work. A ring of knobs in the form of flower buds projects from one edge. Lahore; 19th century. [I.M. 1909.] 302 Bracelet; silver open-work. 19th century. Amritsar. [I.M. 513.] 303. Box, Batwa, *h*. Globular blue enamel with rubies, diamonds, and emeralds set in gold, attached by seven gold chains to a smaller box of green enamel with rubies and emeralds set in gold. Gold spoon enamelled green. Delhi. [I.M. 184.] 304. Necklace. Thirteen rectangular plaques, enamelled, with diamonds set in gold, terminating with rows of seed pearls (strung on gold wire thread); coarse work. Delhi. [I.M. 328.] 305. Ring; silver. Kangra. [I.M. 1130.]

PLATE 45.—306. Earring, Karanphul. A silver ring, from which depend two triangular plaques with open work round the sides, to which small lobular pendants are attached. Panjab. [I.M. 1136.] 307. Earring, Phul jhumka; gold filigree. Delhi. [I.M. 303.] 308. Necklace, Champa kali. Gold, consisting of forty-two small pendants and one large one, strung on red silk covered with gold wire. Each pendant is set with brilliants, and is enamelled in red, green, and blue, and has a pearl attached to its lower extremity. Delhi; 19th century. Bonght £4-15-4. [I.M. 1867.] 309. Bracelet; silver; coarse filigree work. Early 19th century. Amritsar. [I.M. 512.] 310. Bracelet; gold, formed of small plaques fitting into one another and threaded on two gold chains engraved with cones of floral ornament. Srinagar, Kashmir. Bought, £10-18-0. [I.M. 1161.] 311. Bracelet; cast silver. The outer edge has ornamental projections. 19th century. Srinagar, Kashmir. Bought, 7/-. [I.M. 2093.] 312. Toe ring; silver. Clusters of grapes or ball ornament attached to a thin plate and fastened to the toe by thin flexible slips of metal. North India. [I.M. 517.] 313. Anklet; silver. Cut diamond pattern. Gujranwala. [I.M. 492.] 314. Anklet; silver, chased with floral bands and perforated with floral ornament. Delhi: 19th century. Bought, £1-10-0. [I.M. 1914.]

PLATE 46.—315. Nose ring, Laung (clove shape); gold. Gujranwala. 316. Necklace, Nám; gold and stones. Instead of the taga or silk thread, gold wire, plaited into a kind of chain, has been used. Lahore. 317. Bracelet, Pahunchi. Mat or basket pattern gold work. Delhi. 318. Wristlet, Bahi. Gold embossed. Lahore. The peculiar trellis framework is found on much of the brass or copper work ornamentation of doors in the Panjab, and is also introduced into some Oriental carpets. 319. Nose ring, Bulak; gold. Jamu. 320. Bangle, Jut; gold pierced work. Lahore.

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For the beautiful photographs, and descriptions which accompany them, of the jewellery in Plates 46 and 47 and others which will follow in Part V., the author and publisher are indebted to Mr. Percy Brown, A.R.C.A., Superintendent of the Museum and Principal of the Mayo School of Art at Lahore, who, as Assistant Director of the Delhi Exhibition of 1902-3, did so much towards making it a success. The illustrative part of the valuable official catalogue of that Exhibition by Sir G. Watt, the Director, was also prepared by him.

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